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FM 8-10

DEPARTMENT OF THE ARMY FIELD MANUAL

Superseded by FM 8-10 (Apr. 70) & FM 8-15 (20 May 68)

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MEDICAL SERVICE

THEATER OF OPERATIONS

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HEADQUARTERS, DEPARTMENT OF THE ARMY
NOVEMBER 1959

AGO 2042B—Oct

FM 8-15 20 May 68 supers Chapters 4 through 12 & Chapter 21; section III, Chapter 13; sections I, II & IV, Chapter 22

FM 8-10
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FIELD MANUAL

MEDICAL SERVICE, THEATER OF OPERATIONS

FM 8–10
CHANGES
No. 2

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C., *3 October 1962*

FM 8–10, 3 November 1959, is changed as follows:

Change word "separate" to read "nonorganic" wherever it is used in conjunction with unit designations.

Page 8, paragraph 4h(3). Change "Sanitation." to read "Development of the command preventive medicine program".

Page 11, paragraph 6c. Change "service" on line 3 to read "services".

Page 17, paragraph 16. Add subparagraph *j* to read "The provision of an optical service".

Page 19, paragraph 18k. Change "self-aid and buddy-aid" on lines 1 and 2 to read "first aid".

Page 20, paragraph 19a. Change "fuctions" on line 2 to read "functions".

Page 38, paragraph 39b. Change "chain of evacuation" on line 5 to read "evacuation system".

Page 42, paragraph 49a(1). Insert "A" before "Medical" on line 1.

Page 43, paragraph 49a(3). Delete "and two aid men are retained in reserve at the battle group aid station." from lines 4 and 5.

Page 44, paragraph 49b(3). Insert "as" after the word "soon" on line 7.

Page 45, paragraph 49c. Delete "and two are retained in reserve at the battle group aid station." from line 3.

Page 45, paragraph 49c(2). Insert "a" on line 1 between "in" and "properly".

Page 46, paragraph 50a(1). Insert "and" on line 2 between "leader" and "also".

Page 51, paragraph 63a(3). Delete "Although assigned to the battalion headquarters," from lines 1 and 2. Paragraph should begin "The aviation medical * * *".

Page 52, paragraph 63a(4). Change "command" on line 4 to read "commanders".

Page 55, paragraph 68. Delete "In addition, there * * * in par. 63*a*(3).)" on lines 4 through 6.

Page 65, paragraph 88. Change "when" to "with" on line 1.

Page 86, paragraph 129a(6). Change "mobiilty" on line 8 to "mobility".

Page 98, paragraph 143a(2). Insert "between" between "point" and "litter" on first line of this page.

Page 110, paragraph 155c. Change "main" on line 10 to read "maintain".

Page 124, paragraph 190a. Change first sentence to read "Unit level medical service is provided by organic medical platoons of the battle groups and organic medical sections of the command and control battalion, engineer battalion, and division artillery."

Page 125, paragraph 190b. Change second sentence to read "In such circumstances, the dispersed elements, normally accompanied by the unit aidmen, receive other unit medical services from the nearest medical facility in the area where located."

Page 128, paragraph 196b. Change "ordnance signal, medical battalions" on line 2 to read "ordnance, signal, and medical battalions".

Page 133, paragraph 209. Change "matter" on the 6th line to read "matters".

Page 135, paragraph 210a(3). Delete "is assigned to the battalion headquarters but" from lines 2 and 3.

Page 138, paragraph 216. Delete "In addition, there * * * refer to paragraph 210*a*(3)." from lines 4 through 7.

Page 143, paragraph 225. Insert "division" between "armored" and "calvary" on line 1. Insert "division" between "armored" and "infantry" on line 2.

Page 150, paragraph 235b(4). Change first line of this page to read "chemical and radiological warfare agents; detection of biological warfare agents; the".

Page 150, paragraph 235e. On line 3, delete "FM 101–10" and substitute "current 8-series TOE, FM 8–5, FM 8–15, and FM 8–55".

Page 156, paragraph 240e(6). Delete "records of" and substitute "data on".

Page 156, paragraph 240g(3). Delete "records" on line 1 and substitute "data".

Page 159, paragraph 241d. On line 4 of this page, change "army surgeon's evacuation officer (MRO)" to read "army surgeon's medical regulation officer (MRO)".

Page 160, paragraph 242c. Insert "field army medical" between "other" and "unit" on line 5.

Page 166, paragraph 250c. Add "civilians and" between "for" and "captured" on line 3.

Page 167, paragraph 250d. On line 5 of this page, delete "on an early convoy." and substitute "for early debarkation following the assault phase."

Page 167, paragraph 251a. Change "with" on line 3 to read "within".

Page 214, paragraph 333. Change "essetnial the" on line 11 to read "essential that".

Page 216, paragraph 344. Delete "the DA Supply Manual 8–1 and 5-series" on lines 2–3 and substitute "references listed in DA Pamphlet 310–28".

Page 217, paragraph 347a. Change "formulations" on line 6 to read "formulation".

Page 228, paragraph 359a. Change "veterinary" on line 11 of this page to read "veterinarian".

Page 242, paragraph 387. Change "guerrila" on line 1 to read "guerrilla".

Page 243, paragraph 389c. Delete "driver of a" from line 11, and change "sides" on line 12 to read "side".

Page 247, paragraph 391c. Change title to read "*Non-Divisional Clearing and Ambulance Companies; Collecting Companies; and Medical Holding Companies.*"

Page 250, paragraph 395b. Delete "already familiar" on line 4 and substitute "initial".

Page 252, paragraph 396a. Delete "resulting from nuclear attack" on line 5.

Page 252, paragraph 397. Change "with capabilities" lines 10 and 11 to read "within capabilities".

Page 256, paragraph 405. Insert "no more than" between "considered" and "adequate" on line 2.

Pages 261–262, Appendix:

Change "DA Pam 310-series" to read "DA Pam 310–1, –2, –3, –4, –5, –7, –28, Indexes to Military Publications".

Change title for FM 5–132 to read "Infantry Division Engineers".

Delete "FM 6–20 Field Artillery Tactics and Techniques".

Add "FM 6–20–1 Field Artillery Tactics and FM 6–20–2 Field Artillery Techniques".

Change title for FM 7–10 to read "Rifle Company, Infantry and Airborne Division Battle Group".

Change title for FM 7–40 to read "Infantry and Airborne Division Battle Groups".

Change title for FM 8–5 to read "Medical Service Units, Theater of Operations".

Add "FM 8–15 Division Medical Service, Infantry, Airborne, Mechanized, and Armored Divisions".

Add "FM 17–30 The Armored Division Brigade".

Change title for FM 17–35 to read "Armored Cavalry platoon troop and squadron".

Change title for FM 17–70 to read "Communication for Armored Units".

Change title for FM 17–100 to read "The Armored Division and Combat Command".

Change title for FM 31–15 to read "Operations Against Irregular Forces".

Add "FM 31–30 Jungle Operations".

Change title for FM 31–70 to read "Basic Cold Weather Manual".

Change title for FM 41–5 to read "Joint Manual of Civil Affairs/Military Government".

Change title for FM 41–10 to read "Civil Affairs/Military Government Operations".

Change title for FM 57–35 to read "Airmobile Operations".

Delete "FM 57–40 The Battle Group, Airborne Division".

Delete "FM 72–20 Jungle Operations".

Delete "FM 100–31 Tactical Use of Atomic Weapons (U)".

Add "FM 101–31 SOFM: Nuclear Weapons Employment (U)".

Delete "FM 110–5 Joint Action; Armed Forces".

Delete "FM 110–10 Joint Logistics Policy and Guidance Manual (U)".

Add "FM 110–101 Intelligence: Joint Landing Force Manual".

Delete "DA Supply Manual 8–1 and 5-series".

Pages 263, 266, and 272, Index:

Change "Area damaged control" to read "Area damage control".

Under "Duties: Armored Division: Aviation medical officer", change page reference from "235" to read "135".

Under "Nursing: Field Army", change page reference from "159" to read "156".

3. General

(Superseded) All commanders are ultimately responsible for the health of their commands. To assist them in the discharge of their responsibility, their staff should include a medical officer, when authorized to be assigned to the unit, who is designated as the "Surgeon," "Chief Surgeon," or by other appropriate title in non-Army commands. The Surgeon is responsible to the commander in all matters pertaining to the health of the command, and functions in accordance with paragraph 8*b*, AR 40–1, in the discharge of this responsibility. He normally is charged with insuring effective operation of medical units organic to or attached to the command, and maintains a close relationship with other staff members in order to secure coordination of the functions, within their areas of responsibility, which affect performance of medical functions. Specifically, he—

* * * * * * *

6. Theater Medical Staff

In a theater headquarters, the principal medical officer is a member of the theater joint staff with access to all members of the theater staff and the theater commander. He is the * * * under military control.

* * * * * * *

e. (Added) For information concerning the duties, responsibilities, and functions of the theater staff medical officer, see FM 31–8.

18. General Doctrines

The operation of the medical service in a theater of operations is based upon certain fundamental principles or doctrines.

* * * * * * *

i. (Superseded) To the maximum extent feasible, medical treatment will be standardized in order to facilitate recovery even when a patient is evacuated through several treatment facilities.

* * * * * * *

22. Organization and Operations

(Superseded)

Organization for medical service in a theater of operations is appropriately described in terms of the services provided to the four major echelons of command supported: the basic operating unit, the division, the field army, and the communications zone operated by theater army logistical command. Each of the higher

levels of medical service reinforces the lower levels which it supports, as required (fig. 1).

a. Unit level medical service consists of the following functions: emergency medical treatment provided at or near the point where injury or illness is incurred; surface evacuation of the patient to a nearby medical facility for initial professional evaluation and treatment within capability; and administration of a basic preventive medicine program for the unit or area supported. Unit medical service is furnished by a medical element organic to the supported unit or on a unit or area support basis throughout division, field army, and theater army logistical commands.

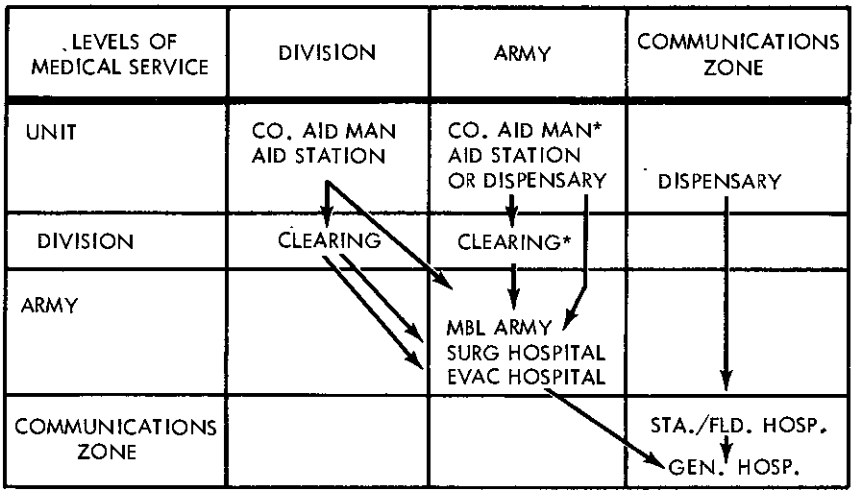

Figure 1. Schematic echelonment of theater medical treatment and evacuation functions. (Superseded)

b. Division level medical service consists of surface evacuation of patients from aid station and/or dispensaries; provision of supportive and/or definitive treatment within capabilities of the clearing station, emergency dental treatment, medical supply support and medical equipment maintenance and repair. Division level medical service is provided on a unit or area support basis primarily in the division and to a lesser extent in the field army command.

c. Field army level medical service consists of surface and aeromedical evacuation of patients from division medical facilities and between medical facilities in the field army area, supportive and definitive treatment within capabilities, and functionally com-

plete dental, veterinary, preventive medicine, medical supply and maintenance, optical, and medical intelligence services. The service just described is provided on a unit or area support basis within the field army command only.

d. Communications zone level medical service consists of surface evacuation of patients from combat zone medical facilities and between communications zone medical facilities, functionally complete supportive and definitive treatment, dental, veterinary, preventive medicine, medical supply and maintenance, optical, medical laboratory, and medical intelligence services. Communications zone level medical service is provided on a unit or area support basis within the theater army logistical command only.

23. Tactical Doctrines of Medical Service

From the mission and characteristics of medical service, originate certain doctrines governing the tactical employment of medical troops. The more important are—

* * * * * * *

i. Reinforcement of Organic Medical Means. A distinction should * * * mission of the element. **In the latter situation, the forward echelon actually adds a function. For example, an armored clearing platoon may be attached to a combat command which must undertake a semi-independent task, thereby adding a divisional medical function at unit level.**

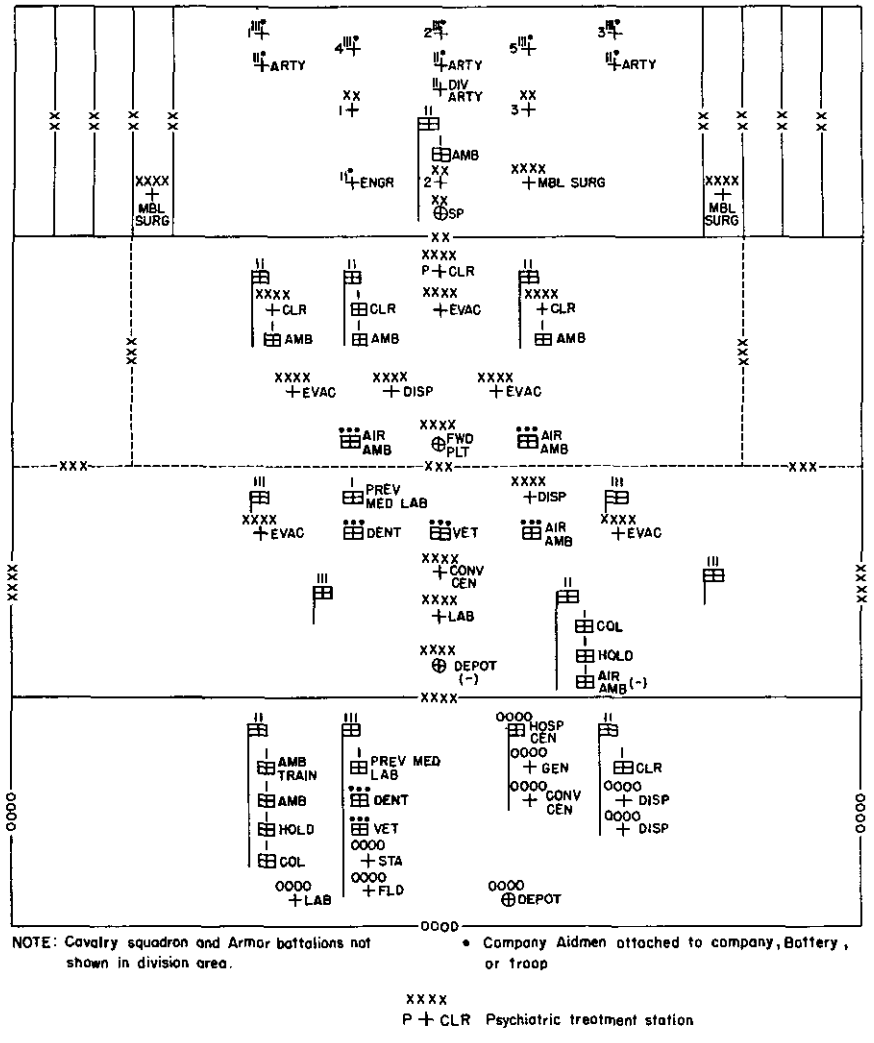

Figure 2. Schematic diagram of Army Medical Service facilities in theater of operations. (Superseded)

26. Sorting (Triage) of Patients

(Superseded)

Sorting of patients is the process whereby treatment requirements are balanced against available treatment capabilities so that the most effective and efficient management of each case may be accomplished. It requires a careful diagnosis and determination of the specific treatment required by each patient, the urgency of the requirement, and determination of the points within the medical treatment and evacuation system where it will be provided.

Patients requiring treatment available locally are retained for local disposition, and those requiring more extensive treatment are evacuated as promptly and directly as possible to the level where final disposition can be made. Sorting also involves the grouping of patients according to the condition to be treated; priority in which treatment or evacuation will be provided; types of facilities or equipment to be used in treatment or evacuation; or upon other criteria which systematize, simplify or increase the efficiency of medical treatment functions. Sorting decisions are reappraised at each level of medical service to assure continuing control of the patient's course through the medical treatment and evacuation system and his return to duty as soon as he is medically fit. Effective sorting requires a high degree of professional judgement, and should be conducted by the most experienced medical personnel available. It is basic to the proper management of patients in the medical treatment and evacuation system and to the efficient utilization of available medical resources.

48. Platoon Headquarters

a. The platoon headquarters of the battle group medical platoon is made up of—

* * * * * * *

(2) (Superseded) A Medical Service Corps officer who assists the platoon leader and also acts as the evacuation section leader.

* * * * * * *

50. Evacuation Section

* * * * * * *

b. Aid-evacuation teams perform * * * battle group aid stations. **They provide primary medical support down to combat platoon level, traveling on foot and using litters for short stretches to place the patient in a location accessible to their ambulance.** They coordinate all * * * section personnel include—

* * * * * * *

62. Division Surgeon

Usually, the senior * * * at all echelons, **and exercises operational control of the division medical battalion when so directed by the division commander.** The duties and responsibilities of the division surgeon are to—

* * * * * * *

87. Mission and Employment of Clearing Company

* * * * * * *

b. Employment. The clearing company of the infantry division medical battalion is normally employed in the following manner:

(1) (Superseded) The battle groups are supported by the clearing platoons. Two forward clearing stations operate in general support of the combat area utilizing echeloned displacement to maintain close contact with the battle groups. Each clearing platoon has a capability for maintaining a treatment facility in each of two locations for the short period required for forward displacement.

* * * * * * *

185.1. Medical Service in Operations Against Irregular Forces (Added)

a. Irregular forces characteristically employ tactics designed to offset the superior combat power of conventional military organizations. With these tactics, relatively small numbers of individuals can tie down and inflict extensive damage on much larger, more highly organized forces untrained in irregular warfare.

b. Medical service organization and procedures will have to be adapted to this type combat to be effective. Medical support will be made more difficult by—

(1) The distances between, and the number of, fixed installations which must be supported.

(2) The requirement to support small mobile units fighting in hostile areas where neither secure ground evacuation nor air evacuation may be possible.

(3) Guerrilla attacks on ground evacuation means.

(4) The inability to reply completely upon scheduled convoy movements for patient evacuation.

c. Measures which should be considered in planning to overcome difficulties imposed by irregular warfare include—

(1) Establishment of aid stations or dispensaries with a treatment and holding capability at much lower echelons than is normal.

(2) Providing enough air or ground transport to enable medical units to move rapidly.

(3) Maximum possible use of aeromedical evacuation and air movement of patients.

(4) Improvisation of small medical units to provide unit level medical support for tactical units on long-range missions.

(5) Use of local labor as litter bearers with combat units.

(6) Increased emphasis on sanitation measures, maintenance of equipment, and first aid training.

(7) Increased arming and combat training of medical service personnel.

(8) Increased use of armored carriers for ground evacuation.

203. Armored Division Cavalry Squadron

In this squadron, troop aid men are attached to the **armored cavalry** troops on the basis of one aid man to each **troop; one aid man to each** of the five medical aid-evacuation teams; and one aid man to each of the **three** armored tracked ambulances. The three aid men employed with the armored tracked ambulances may also be **employed** in support of the four **armored cavalry** troops as the surgeon may direct. Evacuation of casualties * * * battalion squadron aid station.

209. Division Surgeon

The division surgeon * * * This responsibility includes—

* * * * * * *

e. (Superseded) Operational control of the armored division medical battalion when so directed by the division commander.

* * * * * * *

220. Clearing Company

* * * * * * *

c. Employment. The clearing company * * * section as follows:

(1) (Superseded) In combat, a clearing platoon operates from the trains area of each of the three combat commands. Each clearing platoon establishes a clearing station with a capacity of 80 patients and receives patients from the battalion/squadron aid stations. Each clearing platoon has the capability of maintaining a treatment facility in each of two locations for the short period required for displacement. Close support of the combat command is maintained by echeloned displacement along the general axis of advance.

* * * * * * *

230. Medical Service in Corps

(Superseded)

a. When a corps serves as part of a field army, corps medical service consists of a medical section, which includes the corps surgeon and those assistants required for the performance of his mission, and unit medical personnel who provide unit level medical service to the corps headquarters. Normally, there are no medical units organic to a corps. When the corps operates as a task force or undertakes an independent mission, it normally receives an attachment of field army medical service units. The medical attachment is specially tailored to the mission and composition of the corps force and to the geographical area in which it is to function. The corps then operates a field army level medical service. Further reference to corps in this discussion refers only to a corps serving as part of the field army.

b. Normally, the field army surgeon, in providing medical support to the integrated corps, will recommend attachment of certain field army medical units to the corps. These units provide unit and division level medical service to the corps' organic and attached nondivisional units on an area medical support basis. Control of the balance of field army medical support is retained at field army level, even in decentralized operations.

232. Office of Corps Surgeon

(Superseded)

Although the exact organization of the office is prescribed by the corps surgeon, his responsibility to the corps commander for the success of medical operations within the corps indicates a requirement for the following—

a. When Corps Operates as Part of a Field Army.

(1) *Personnel and administration.* Functions of this section include the management, assignment, and reassignment of personnel within the medical section of corps headquarters; processing the surgeon's recommendations for assignment, including priorities, of medical service personnel to medical units/elements assigned or attached to the corps; responsibility for medical records and reports within the corps; and administration of the corps surgeon's office.

(2) *Plans, supply, and operations.* This section plans and coordinates the employment of corps medical units; medical training for corps troops; and medical supply, maintenance, and optical service for corps troops.

(3) *Preventive medicine.* This section plans and coordinates the total preventive medicine effort of the corps, insuring that effective health, hygiene, and sanitation programs are conducted by subordinate and nondivisional units. It also coordinates preventive medicine support provided from field army level.

b. When Corps Operates Independently. In this capacity, the corps surgeon's office performs essentially the same functions as described for the field army surgeon's office (par. 240). An appropriate personnel augmentation is required to discharge added staff functions.

236. Administrative Responsibility of Field Army

The field army * * * all administrative matters.

* * * * * * *

c. Medical Service. (Superseded) The field army is responsible for field army level medical service (par. 22*c*).

238. General Organization of Medical Service of Field Army

(Superseded)

The field army medical service consists of the Army surgeon, his staff, medical elements organic to field army units, and a series of subordinate medical groups of flexible internal organization which perform composite medical functions. These medical groups will have attached to them the types and number of medical service support elements tailored to meet requirements of supported combat forces and geographical conditions. The types of these medical service support elements are: medical battalion headquarters; air and ground ambulance companies; evacuation hospitals; mobile army surgical hospitals; army medical depots; convalescent centers; preventive medicine laboratories, field; clearing, collecting, and holding companies; professional services; dental, veterinary, dispensary; and other TOE 8–500 detachments and teams.

240. Organization of Office of Field Army Surgeon

The medical section * * * satisfy average requirements:

* * * * * * *

c. Preventive Medicine Subsection. This subsection is * * * this subsection include—

* * * * * * *

(3) (Superseded) Preparation of directives dealing with the preventive medicine program.

* * * * * * *

241. Relationships of Field Army Surgeon

* * * * * * *

c. With Commanders of Field Army Medical Units. (Superseded) The field army surgeon normally exercises operational control of field army medical units through a vertical medical command structure of medical group and battalion headquarters.

* * * * * * *

245. Air Evacuation

Aircraft are called * * * availability of aircraft. Normally, the Air Force establishes casualty staging facilities **on or near the airstrip** in order to expedite the loading of aircraft and to provide **limited** medical care **for periods not to exceed three hours for patients awaiting aircraft.**

250. Medical Planning

The field army * * * is as follows:

a. Development of Medical Plan. After receipt of * * * the troops involved. **This recommendation will include prescribed missions for the field army's medical groups.** This recommendation may include the theater army logistical command units needed initially to support the field army as it moves forward. The recommendation is * * * other pertinent factors.

* * * * * * *

269. Office of Theater Army Logistical Command Surgeon

There is no * * * is as follows:

* * * * * * *

j. The supply division * * * theater army commander. It secures medical supplies for military **and civil affairs agencies** within the policies established by the theater army commander. It technically supervises * * * and repair service.

* * * * * * *

273. Responsibility

a. The evacuation of * * * army logistical command. The field armies of the combat zone must notify the commander, theater army logistical command, of their evacuation requirements, since he must provide **or arrange for** the necessary means of evacuation and **for reception of patients in medical facilities of his command.**

* * * * * * *

276. Medical Regulating

a. Close coordination must * * * zone of interior. **Normally, patients are evacuated from the field army to the base logistical command. In an emergency, however, when evacuation to the base logistical command is infeasible because of lack of transportation or nonavailability of beds in that command, patients may be evacuated from field army to the advance logistical command(s).** Based upon the * * * which concerns them.

* * * * * * *

351. Field Army Veterinarian

In accomplishing the mission of the field army veterinary service, the field army veterinarian specifically has the following functions:

* * * * * * *

b. (Superseded) Plans and coordinates operation of veterinary service units or teams assigned or attached to the field army, and recommends allocation of veterinary resources to subordinate commands. Acting on authority delegated by the commander through the surgeon, the field army veterinarian may exercise operational control over veterinary service units and detachments either directly or through commanders of subordinate medical groups to which they may be attached. Veterinary service detachments with the field army usually are organized to insure maximum effective use of available resources.

c. (Superseded) In a like manner, the veterinarian plans and coordinates employment of veterinary personnel attached to units which use animals and exercises appropriate technical supervision over veterinary treatment and evacuation functions performed by them.

* * * * * * *

353. Veterinary Animal Service, Field Army

a. General. (Superseded) It is Department of the Army policy that animals will be used to perform tasks which cannot be accomplished more effectively and economically by other available means. The type of animal utilized by the field army normally is limited to dogs. This may include messenger, mine detection, scout, sentry, and sledge dogs. However, under special situations, such as operations against irregular forces, horses and mules may be utilized in the logistical support of such forces. In addition, there is still a potential requirement for veterinary support of allied

forces which utilize animals. Therefore, the army veterinarian must plan for both large and small animal support of tactical operations.

* * * * * * *

364. General

(Superseded) The dental surgeon of a command is a special staff officer whose principal duties are to assist the commander in the exercise of those responsibilities related specifically to the dental health of the command. A dental surgeon may or may not be present on the staff of the theater commander. Major commands within a theater of operations normally having staff dental surgeons include: theater army forces, theater army logistical command, each of the commands directly subordinate to theater army logistical command, and field army (or separate corps). To assist the field army dental surgeon in the discharge of his responsibilities for operational control and technical supervision of area dental units and facilities, senior dental officers in command of major dental units will be assigned to perform such duties as required. Normally, one such dental officer per corps zone or comparable area will be so designated by the field army commander. Attachment of dental units and personnel to medical groups and other subordinate command headquarters of the field army will be accomplished as necessary to insure adequate command control and administrative support for the discharge of their functions. The duties of staff dental surgeons, as of all special staff officers, are primarily advisory, planning, and supervisory in nature. Specifically, they—

* * * * * * *

e. (Superseded) Under authority delegated by the commander, normally exercise operational control over dental units assigned or attached to the command.

* * * * * * *

368. Organization

b. Area Dental Service. (Superseded) Area dental service consists of TOE dental units of the 8–500-series which are under the operational control of the staff dental surgeons of field armies and subordinate commands of the theater army logistical command. Operational control of field army dental units normally is exercised through the commander of the medical group to which the composite dental unit is attached. They provide the bulk of area dental support and normally are given general support of reinforcing type missions.

369. Operation

* * * * * * *

c. TOE dental units * * * the command boundaries. **To insure economy in use and flexibility of available dental means,** control remains centralized but the operation is decentralized and becomes the responsibility of the dental unit commanders who, through the manipulation of subordinate dental units and teams, can exploit all opportunities to furnish dental support to units and personnel located within their zones of responsibility.

* * * * * * *

374. Area Dental Service

Dental units performing dental support missions within the combat zone are controlled operationally by the field army dental surgeon. **The dental surgeon exercises operational control through the commander of the medical group to which the composite dental support organization is attached.** Normally, dental support in the combat zone is provided on an area basis by dental units of the TOE 8–500-series **attached to a composite dental support organization to insure flexibility and economy in use.** In addition, these * * * a designated area.

395. Basic Principles

a. (Superseded) In the event of nuclear attack upon our forces, commanders will be confronted with problems concerning medical service basically similar to those encountered in conventional warfare *except* that these problems will be compressed into a brief time element to a degree never before encountered, and an appreciable number of casualties may result from subsequent radiation effects. When the number of patients requiring treatment and/or evacuation greatly exceeds immediate capabilities of the medical treatment and evacuation system, a mass casualty situation exists.

* * * * * * *

c. (1) (Superseded) In the expectation of mass casualties resulting from a nuclear attack and the resulting complete commitment of medical service personnel, commanders at all echelons will place great stress on individual survival care training. *Every individual in the United States Army must be capable of performing first aid to the maximum extent possible.*

* * * * * * *

(4) (Superseded) Hospitals should be kept intact as long as possible. Medical teams employed in the incident area(s)

should come preferably from other units such as clearing companies and dispensaries.

* * * * * * *

407. General

(Superseded)

Within the logistical area supporting the divisions engaged in combat, the principles of area damage control (as outlined in FM's 31–15 and 101–31 and briefly discussed in this chapter) are applicable. However, the normal medical support organization will be used to the maximum extent feasible in connection with area damage control operations. Since most medical groups control composite medical functions, each group normally will be capable of providing significant assistance in solving medical problems which normally attend area damage control situations.

BY ORDER OF THE SECRETARY OF THE ARMY:

EARLE G. WHEELER,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

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8-520 (2)

NG: State AG (3); units—same as active Army except allowance is one copy to each unit.

USAR: Same as active Army.

For explanation of abbreviations used, see AR 320-50.

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FIELD MANUAL

MEDICAL SERVICE, THEATER OF OPERATIONS

FM 8-10
CHANGES No. 1

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C., *10 October 1961*

FM 8-10, 3 November 1959, is changed as follows:

CHAPTER 13

MEDICAL SERVICE IN CORPS AND ARMY

* * * * * * *

Section III. AIR AMBULANCE SERVICE

(Superseded)

253. General

The inherent characteristics of the helicopter increase the speed and flexibility of the evacuation system of the Army Medical Service. The capability of the helicopter ambulance to circumvent enemy defenses and natural obstacles, to remove patients from and transport medical supplies/personnel to otherwise inaccessible areas, increases materially the operational effectiveness of medical service. The minimum landing site requirements of the helicopter which permit its use well forward, and its capacity for speed over unfavorable terrain, will permit rapid evacuation of patients from the forward areas to field army service area medical facilities supporting the battle group or battalion medical service.

254. Definitions

a. Army Aeromedical Evacuation. That segment of the combat zone medical evacuation function which employs AMEDS air ambulances and provides in-flight medical treatment/surveillance.

b. Army Air Movement of Patients. That segment of the combat zone medical evacuation function which employs AMEDS air ambulances or non-AMEDS air vehicles under operational control of the surgeon and in which prior medical treatment precludes the need for in-flight medical treatment/surveillance.

255. Mission

a. The primary mission of the air ambulance service is to provide on-call Army aeromedical evacuation of seriously ill or injured patients.

b. Secondary missions include the following:

(1) Movement of medical personnel and/or materiel to meet a critical requirement.

(2) Army air movement of patients when ground ambulance resources are inappropriate or inadequate to perform the task.

(3) Augmentation of ground evacuation units as required.

(4) Lateral shifting of patients to other medical facilities for treatment.

256. Capabilities

The number of patients that can be transported by each air ambulance during a normal day of operations is dependent upon the type of aircraft utilized and the time and distance involved in each sortie. Maximum utilization of the air ambulance is further limited by weather, the aircraft maintenance factor, and pilot fatigue. The utility helicopter presently authorized for air ambulance units is capable of transporting litter patients and a medical attendant internally, can operate during instrument flight conditions, and has a maximum one way range payload of approximately 175 nautical miles. Since organic Army Medical Service air ambulances are generally used for medical purposes only in the combat zone, they are marked with Geneva Convention red crosses.

257. Operations

a. Aeromedical evacuation within the combat zone is provided by AMEDS units which operate under the overall supervision of the field army surgeon. Normally, direct command of these units is exercised by a medical group headquarters.

(1) Support of a fully integrated force of corps size or larger is furnished by air ambulance companies augmented as required by helicopter ambulance detachments. To insure maximum flexibility and control, these units are normally assigned an area support mission. This does not preclude the initial assignment in a particular operation of a direct support mission (e.g., support of a specific division) to a subordinate platoon of the company or to a detachment. To the maximum extent feasible, authority to exercise operational control of helicopter ambulance detachments is vested in the air ambulance company headquarters.

(2) Support of forces of division or brigade size which operate independently may be provided by a helicopter ambulance detachment or section thereof. The detachment normally operates under direct control of the surgeon of the independent force. If the force operates at an extended distance from its support base, the attached air ambulance unit normally performs intraforce evacuation missions only. This creates

an additional requirement for aeromedical evacuation out of the area by the next higher level of medical service.

b. Army air movement of patients is performed as a secondary mission of AMEDS air ambulance units. Also, upon request of the responsible surgeon, such movement may be performed as a contingent mission of a non-AMEDS unit which employs appropriate type air vehicles. In the latter instance, these will be scheduled movements or movements of opportunity. Scheduled patient movements involve use of backhaul capabilities of regular resupply or reinforcement sorties for transporting patients who do not require in-flight medical treatment between points predesignated by the surgeon responsible for that segment of the evacuation system. Evacuation movements of opportunity are instituted by the medical officer in the forward facility when a requirement arises coincident with the availability of a nonscheduled aircraft which is to move to the general destination area predesignated by the supporting surgeon for these patients. In this instance, the forward medical officer must arrange for the ambulance pickup of the patients at the destination airfield.

c. Augmentation aeromedical evacuation may be improvised, using these same non-AMEDS air vehicles, to meet the balance of requirements of peak periods of activity when normal aeromedical evacuation capabilities become temporarily inadequate. Improvisation consists of providing appropriate AMEDS personnel and material to furnish in-flight medical treatment on those aircraft whose size and interior configuration permit medical personnel to work effectively. In instances of extreme pressure on the patient evacuation system, every available space on general purpose air vehicles will be used to transport all classes of patients without mandatory provision for in-flight medical treatment. Regardless of the method used, the responsible surgeon designates the point of origin, the patients to be carried, and the destination point.

d. Air ambulances are used as far forward as combat conditions permit, including evacuation missions from beyond the forward edge of the battle area. To prevent disclosure of vital tactical positions, medical personnel of the supported unit designate a patient pickup point which avoids these positions while affording the maximum protection feasible for the evacuation operation.

258. Procedure for Requesting Service

a. Individual missions are based upon requests from units within the field army requiring medical service and upon reports from members of the air ambulance unit operating in the forward areas. Since the majority of requests for aeromedical evacuation originate in the division, the basic concept of mission control is oriented on this requirement. Mission requests are placed in medical channels at the

lowest possible level affording the responsible surgeon the control of type patients for air evacuation. Mission requests normally are processed through medical channels, using direct medical communications systems or common user systems, whichever is faster and more reliable. When common user systems are used, it is more desirable that a sole-user channel be allocated for expeditious transmission of aeromedical evacuation requests.

b. Combat zone Army aeromedical evacuation units normally operate as organic elements of the field army level of medical service. Requests normally flow from unit (e.g., battle group or battalion medical service) surgeon, to division surgeon, thence directly to the headquarters of the supporting air ambulance company. This last transmission is monitored by the corps surgeon to keep him abreast of current demands for the service. Adjustments in the commitment of evacuation capabilities between supported divisions are made by the air ambulance company commander upon instructions from the commander of his parent medical group and in coordination with the corps surgeon who establishes priorities for support among subordinate units of his corps. The company commander coordinates and receives flight recognition from the flight operations center (FOC). The requesting surgeon is notified as to the estimated time of arrival of the air ambulances.

c. Independent division or brigade size task forces may be provided aeromedical evacuation support by an attached air ambulance detachment/platoon, operational control of which normally is exercised by the division/task force surgeon. The division surgeon determines through the division Army aviation commander (DAC) if local conditions will affect the air ambulances in reaching the area of pickup. If the mission is approved by the division surgeon, it is assigned to the air ambulance unit. The air ambulance unit coordinates routes and flight recognition for air space clearance with the flight coordination center (FCC) or FOC located at higher level. In addition, the DAC contacts the fire support element (FSE) and air defense element (ADE) and all other interested division tactical operations center (DTOC) elements at division. Upon receipt of the flight plan, FOC will coordinate with air defense command post (AADCP) to provide aircraft identification information.

d. If air ambulance service is not available, the request for support is forwarded to the DAC who determines the availability of aircraft. If aircraft are available, they will normally be placed under operational control of the division surgeon for the duration of the specific mission. The surgeon is informed promptly of the mission flight plan and any necessary adjustments thereto as a basis for medical decisions on management of the patient, including changes in his destination.

259. Aeromedical Evacuation Requirements

a. Prior to flight takeoff, air ambulance units will normally obtain individual flight recognition from flight regulation agencies in order to avoid interference with tactical security, friendly fires, and tactical air support. Normally, the operations officer of the air ambulance unit obtains this clearance.

b. In order for the controlling surgeon to evaluate and establish priorities for evacuation, requests must contain pertinent information. This includes—

(1) Requesting unit.
(2) Number of patients to be evacuated.
(3) Types of injuries.
(4) Exact location of the pickup site by grid coordinates.
(5) Time patients will be ready for evacuation.
(6) Requests for emergency resupply or special equipment required.

c. The unit requesting air ambulance service has the responsibility of selecting and properly marking the landing site and the loading of the aircraft. Medical air evacuation is covered in SOP's of various units; however, for guidelines, see FM 8–35.

260. Maintenance

Maintenance constitutes a major problem in the employment of helicopters. In order for proper maintenance to be performed on the helicopter ambulances, each craft is deadlined in accordance with instructions pertaining to the type craft. Three categories of maintenance apply to army aircraft and are followed in the maintenance program of the air ambulance unit.

a. Organizational maintenance is performed by the air ambulance unit with the personnel, tools, equipment, and spare parts available.

b. Field maintenance for army helicopters is the responsibility of the commander of the field army to which the air ambulance unit is assigned, and is provided by army aircraft field maintenance units of the Transportation Corps.

c. Depot maintenance of army aircraft is the responsibility of the Transportation Corps.

261. References

For further details regarding helicopters and air ambulance service, see FM 1–100, FM 1–5, FM 8–5, and FM 8–35; TM 57–210.

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FIELD MANUAL
No. 8–10

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C. *3 November 1959*

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CHAPTER 1
GENERAL

1. Purpose and Scope

a. The purpose of this manual is to promote an understanding of the role of the Army Medical Service in a theater of operations. Missions, responsibilities, doctrines, staff relations, and the organization and operation of the medical service at the several command levels, in varying tactical situations, and in special operations are covered in this manual. The general territorial organization of a theater, its field combat units, command and technical channels, tactical concepts, and the responsibilities of command are covered only to that degree considered essential to an understanding of the relation of the medical service to the total military effort.

b. The material presented herein is applicable without modification to both nuclear and nonnuclear warfare.

2. References

This manual should be studied in conjunction with FM's 8–5, 8–55, 31–8, 100–5, 100–10, 100–15, 101–5, and 101–10, particularly in connection with those sections dealing with organization for administration and support, command relationship, and communication. In cases of conflict, the provisions of these manuals will govern. For military terms not defined herein, see AR 320–5, and for a list of training publications, see DA Pamphlets 310–3 and 310–4.

CHAPTER 2
THE SURGEON

3. General

A special staff officer at any command level represents his service. The medical service is represented by a Medical Corps officer, who is, designated as the "surgeon." When serving as the medical member of the special staffs of the theater commander and theater Army commander, he may be designated as "chief surgeon." Although a technical expert, the surgeon is a staff officer and, as such, has the responsibility of assisting his commander in the exercise of his command responsibilities. Health of the troops is a command responsibility. The surgeon is responsible to the commander on all matters pertaining to the health of the command. Functions involved in maintaining the health of troops do not pertain exclusively to a single operational staff member. Therefore, the surgeon maintains a close relationship with each operational staff member within the latter's stipulated functional area. The surgeon's principal duties, as of all other special staff officers, are advisory, planning, and supervising. Specifically he—

a. May perform specified functions of command over designated medical units when so directed by his commander. Under authority delegated by the commander, the surgeon normally will exercise operational control over medical activities. (All subsequent references to the exercise of operational control by any command surgeon includes the implication that this control has been directed by the commander.) This is necessary in order to achieve the effectiveness, responsiveness, and flexibility in medical service support required by the supported combat formations.

b. Advises the commander and staff on matters pertaining to the medical and veterinary services of the command and in areas under military control.

c. Technically supervises the determination of requirements for, and the requisitioning, procurement, storage, distribution, and documentation of, medical, dental, and veterinary equipment and supplies.

d. Makes plans and recommendations for procurement and employment of medical troops and their allotment to subordinate units.

e. Prepares and supervises training programs of the medical units under his operational control.

f. Exercises technical supervision over medical training throughout the command, including sanitation, first aid, and hygiene for all troops.

g. Plans and supervises medical service operations, including—

(1) A system of evacuation and hospitalization to include aeromedical evacuation and employment of Army Medical Service air ambulance units.

(2) Preventive medicine functions within the command.

(3) Professional medical service in subordinate units.

(4) Veterinary food inspection service and animal veterinary service of the command.

(5) Preparation of reports on, and custody of, the records of injured, sick, and wounded.

(6) Medical equipment maintenance and repair facilities.

(7) Medical supply.

(8) Examination and processing of captured medical supplies and necessary inspection service for captured animals and food supplies.

(9) Collection, evaluation, and dissemination, in coordination with G2/Director of Security, of information concerning enemy medical activities.

(10) Technical inspection of medical equipment and supplies to include organizational maintenance of such equipment and supplies.

(11) Supervision of the equipment status reporting system within his area of responsibility.

h. Advises and assists G5/Director of CA and the CA unit, as appropriate, in planning and supervising public health operations including civil preventive medicine, civil veterinary food inspection, and veterinary animal inspection.

4. Surgeon and Commander's Staff

In a theater of operations, headquarters of commands which use general staffs are The Theater Army, The Theater Army Air Defense Command, The Theater Army Replacement and Training Command, The Army Group, Field Army, Corps and Division. The Director Staff is used in Logistical Commands and in The Theater Army Civil Affairs Command. These general and director staffs assist their respective commanders in discharging their responsibilities. The diversified activities of the medical service require

the surgeon to deal with all sections of his commander's general or director staff, and in those commands lacking one or more general/director staff sections, with the staff officers discharging such general/director staff functions. So far as the surgeon is concerned with any of the following functions, he deals with the general or director staff sections as indicated below:

a. G1 Section/Director of Personnel.

(1) Reports of human casualties.

(2) Morale, personnel matters, and replacements for medical units.

(3) Medical problems associated with prisoners of war.

(4) Employment of prisoners of war to reinforce the medical service.

(5) Discipline, law, and order as applicable to the medical service.

(6) Preventive medicine and health of the command.

(7) Coordination of nonmilitary welfare and relief agencies in Army Medical Service installations and local labor requirements.

b. G2 Section/Director of Security.

(1) Diseases occurring in enemy forces and in enemy occupied territory.

(2) Nature and characteristics of weapons, missiles, gases, and other casualty-producing agents employed by the enemy.

(3) The character of the organization, operations, and equipment of the enemy, especially as it affects the medical service.

(4) G2/Director of Security functions as they apply to prisoners of war in medical installations.

(5) Requests for information in regard to the enemy.

(6) Biologicals and medical equipment being used by the enemy.

(7) Analysis of weather, terrain, and climatological factors affecting humans and animals.

c. G3 Section/Director of Security.

(1) Medical service for rear area defense.

(2) Current information regarding rear area defense and security measures.

d. G3 Section/Director of Plans and Operations.

(1) Current information of the tactical situation, including combat operations, future plans, and reconnaissance.

(2) Mobilization and training of medical units; training of all personnel in military sanitation, hygiene, and first aid.

(3) Allocation of medical units to subordinate commands.

e. G3 Section/Director of Services. Signal communications in medical installations.

f. G4 Section/Director of Security. Medical service in area damage control.

g. G4 Section/Director of Plans and Operations. Tactical dispositions of medical units, including movement of medical units.

h. G4 Section/Director of Services.

(1) Hospitalization and evacuation of the sick and injured.

(2) Reinforcement of the medical service by a higher command (in coordination with the G3/Director of Plans and Operations).

(3) Sanitation.

(4) Construction of facilities for medical units.

(5) Shelter for medical troops and installations.

(6) Allocation of real estate for medical units.

(7) Traffic control and restrictions affecting vehicles of the medical service.

(8) Transportation required for medical units and supplies.

(9) All other matters which have not been specifically allotted to another general/director staff section, or wherein there is doubt as to which section has jurisdiction.

i. G4 Section/Director of Supply and Maintenance.

(1) Supply matters, both general and medical.

(2) Maintenance and repair of medical supplies and equipment.

j. G5 Section/Director of Civil Affairs.

(1) Medical problems associated with civil affairs in the control of inhabitants of areas under military control.

(2) Indigenous civilian evacuation and hospitalization.

(3) Veterinary problems associated with control of indigenous animal diseases transmissible from animal to man.

5. Surgeon and Special Staff

The expenditure of much time and energy may be spared the general staff by the close cooperation of the surgeon with other members of the special staff. Procedures followed in peacetime training should be formulated with a view of wartime operations. Agreements among special staff officers promote efficiency as well

as foster the friendly personal relations that are so essential to the smooth functioning of a staff. The more important special staff contacts of the surgeon include the following functions with the special staff officers indicated:

a. Engineer.

(1) Hospital and general construction; repair and maintenance of roads; equipment and structures used by the medical service.

(2) Water supplies, sewerage systems.

(3) Electrical utilities.

(4) Acquisition of land and existing shelter for medical troops and installations.

(5) Road construction and maintenance in and around medical installations.

(6) Insect and rodent control. Preventive medicine units may be used to supervise this work until adequately trained engineer personnel are provided.

(7) Camouflage measures.

(8) Preparation of signs.

(9) Surveying and mapping.

(10) Fire protection.

(11) Waste disposal and sanitary fill operation.

b. Quartermaster.

(1) General supplies for medical units.

(2) Procurement and operation of utilities allocated to the Quartermaster Corps, such as laundry service and dry cleaning, mobile bath units, and facilities for disinfestation of clothing and equipment.

(3) Procurement of clothing for gassed cases and other patients returning to duty.

(4) Food service.

(5) Disposition of the dead at medical installations; the sanitary aspect of the disposition of all dead.

(6) Animal transportation.

(7) Supplies for insect and rodent control.

c. Transportation Officer.

(1) Transportation, land and water.

(2) Motor transport of medical units.

d. Chemical Officer.

(1) Chemical, biological, and radiological defense of medical

troops and installations; procurement of gas masks for patients.

(2) Toxicology and pathology of new gases.

(3) Types of gas used and methods of identification.

(4) Monitoring of contaminated areas and decontamination.

e. Adjutant General.

(1) Procedures for accomplishment of official correspondence through command channels.

(2) Pertinent personnel matters.

(3) Postal service for medical units and installations.

(4) Casualty reports.

f. Signal Officer. Signal communications for medical installations.

g. Staff Judge Advocate.

(1) Questions of military and civil law.

(2) Administration of military justice in medical units.

(3) Legal assistance and advice.

h. Headquarters Commandant. Physical arrangements for, and movement of, the surgeon's office.

i. Inspector General. Conduct of inspections and investigations affecting the medical service of the command as prescribed by Army regulations.

j. Provost Marshal.

(1) Provision of guards for prisoner-of-war patients in medical installations.

(2) Provision of guard detachments for hospital prison wards.

(3) Designation of unsafe indigenous eating and drinking establishments and known areas of prostitution as "off limits."

k. Army Aviation Officer.

(1) Aeromedical evacuation and delivery of emergency medical supplies including whole blood.

(2) Technical operations, employment, and training of aerial ambulance units.

l. Dental Surgeon. Coordination of all matters pertinent to the dental health of the command.

6. Theater Chief Surgeon

The theater chief surgeon, as a member of the theater joint staff, has access to all members of the theater staff and to the theater

commander. He is the advisor to the theater commander and his joint staff on health, medical and veterinary matters in the command and in areas under military control.

a. He has general technical supervision over the medical service of the entire theater. He prepares overall medical plans and broad directives to coordinate interdependent activities of the operating medical services of the Army, Navy, Air Force, and task forces in the theater. He coordinates the joint use of medical facilities by all forces in the theater when it is found that such coordination improves medical practices, utilizes the personnel of the medical service more adequately, and economizes in the use of medical and other means.

b. His main objective is to assist each of the interdependent operating medical services in performing its respective functions.

c. To assist him in the performance of his duties, the theater chief surgeon is provided with assistants who are members of the military service in the theater.

d. There is no prescribed or established form for the internal organization of the theater chief surgeon's office.

7. Theater Army Chief Surgeon

The theater Army chief surgeon is a member of the special staff of the theater Army commander. As such, he has access to all other members of the theater Army staff and to the theater Army commander.

a. The general mission of the theater Army chief surgeon is to—

(1) Conserve military manpower through appropriate disease preventive measures, adequate medical and surgical treatment, regulated evacuation, and suitable hospitalization.

(2) Assure proper technical training of all Army Medical Service troops of theater army forces.

(3) Assure the supply of medical equipment and supplies in such quantities and at such times as are required for the forces supported.

b. Normally, it is the responsibility of the theater Army chief surgeon to—

(1) Provide information and technical advice to the theater Army commander, and to his general and special staffs; and keep them constantly informed as to the condition, capabilities, and requirements of the medical service in respect to personnel, equipment, and establishments to meet future needs.

(2) Maintain general technical supervision over the medical service of the theater army forces as a whole.

(3) Prepare operational plans based on command decisions with respect to activities of the Army Medical Service.

(4) Supervise professional treatment methods (medical, surgical, nursing, and veterinary) throughout the theater.

(5) Determine and supervise implementation of vaccination, inoculation, and other health protective measures required by Army personnel.

(6) Recommend and supervise the sanitary measures to be enforced in all localities where troops are located.

(7) Recommend the appropriate contents of the soldier's ration from the standpoint of health.

(8) Establish the criteria for the wholesomeness inspection of food to be consumed by troops.

(9) Supervise the medical aspects of control and prevention of disease and injury in troop areas.

(10) Maintain technical supervision over Army Medical Service training activities, excluding dental; designate special training personnel; prepare curricula for the various Army Medical Service schools; and prepare special training publications.

(11) Determine personnel requirements and supervise distribution of specialized personnel of the Army Medical Service as deemed necessary to accomplish the mission of the theater Army medical service.

(12) Recommend the distribution of medical units to major commands.

(13) Recommend construction standards for hospitals.

(14) Broadly supervise the evacuation and hospitalization of patients in Army hospitals and make pertinent recommendations regarding theater evacuation policy.

(15) Determine future requirements of medical supplies and equipment and periodically reappraise and distribute information with respect to such supplies and equipment, indicating both the quantity needed and the timing involved.

(16) Determine procurement policies and procedures for medical supplies and equipment in the theater within the limit of policies determined by higher authority.

(17) Formulate fiscal policies pertaining to the Army Medical Service and exercise control of Army Medical Service funds.

(18) Develop new, improved, or special types of supplies and equipment to meet the particular requirements of the medical service of the theater.
(19) Recommend physical standards for retention in the theater of officer and enlisted personnel in all branches of the Army.
(20) Advise G5 and assist The Theater Army Civil Affairs Command in public health aspects of civil affairs activities, as applicable.
(21) Compile records of medical statistics for theater army forces.
(22) Make technical inspections of, and call for technical reports from, all units of the theater on matters pertaining to the medical service as are necessary to insure proper execution of the plans of the theater Army commander.
(23) Provide for adequate Army Medical Service representation in theater joint medical regulation activities.

8. Office of Theater Army Chief Surgeon

The internal organization of the theater Army surgeon's office is the prerogative of the surgeon, subject to approval of the theater Army commander. It includes those divisions necessary to enable the surgeon to perform his assigned functions.

a. Its size and composition vary in accordance with the strength of the Army forces in the theater, the nature of military operations to be conducted, and the specific responsibilities assigned. In addition to the theater Army chief surgeon and his deputy or deputies, the office may be divided into the following divisions: administrative, historical, hospitalization, medical records and statistics, nursing, operations, personnel, professional services, preventive medicine, supply, veterinary, fiscal, and management. Such divisions may be subdivided into appropriate branches. For example, the operations division may be subdivided into branches as follows: planning, troop requirements and movements, evacuation, training, intelligence, and civil affairs.

b. In any case, the theater Army chief surgeon's office must be organized to conform to the pattern of centralization or decentralization dictated by the theater Army commander. In general, it concerns itself with broad planning and supervision, leaving the development of more detailed plans and their implementation to surgeons of subordinate headquarters.

9. Operations

a. Functions normally retained at theater Army headquarters include—

(1) The formulation of plans for the overall operations of the theater Army medical service.

(2) Formulation of training policies and the supervision of Army Medical Service training.

b. Functions normally decentralized to theater Army logistical command headquarters within its area of responsibility include—

(1) Formulation and *implementation* of medical plans in conformity with medical plans of theater Army headquarters.

(2) Distribution of patients in communications zone hospitals.

(3) The movement of patients between fixed installations and the movement of patients to ports and airfields in transit to the zone of interior.

(4) Assignment and operation of medical units, except that approval of the establishment and closure of fixed hospitals is retained at theater Army headquarters.

(5) Implementation of training directives of theater Army headquarters pertaining to communications zone troops.

10. Hospitalization

a. Functions normally retained at theater Army headquarters consist of—

(1) Approval of fixed hospital sites.

(2) Determination of general construction standards and scales of accommodation for hospitals and general dispensaries.

(3) Approval of requests for construction over and above authorized standards and scales of accommodation.

b. Functions normally decentralized to theater Army logistical command headquarters within its area of responsibility include—

(1) Responsibility for acquisition of hospital sites.

(2) Responsibility for coordination of hospital construction with communications zone engineers.

(3) Approval of the design plans for conversion of sites for hospital use within established theater standards.

(4) Responsibility for maintenance and upkeep of hospitals and dispensaries.

(5) Responsibility for implementing policies and procedures of higher headquarters relating to hospitalization.

11. Medical Supply

a. Medical supply functions normally retained at theater Army headquarters include—

(1) Overall supply planning for theater Army forces and other forces which must be supported.

(2) Establishment of overall supply policies, supply levels, and priorities for the distribution of supplies to major commands.

(3) Supervision of the operation of the medical supply system of the theater Army forces.

b. Functions normally decentralized to theater Army logistical command headqarters within its area of responsibility include—

(1) Procurement of military and civil affairs medical supplies.

(2) Supervision of medical supply installations and the receipt, classification, storage, and disposition of military, civil affairs, and captured medical supplies.

(3) Supply of Navy and Air Forces in accordance with procedures established in the theater.

(4) Control of distribution of stock to medical supply installations.

(5) Maintenance of records pertaining to status of stocks in medical supply installations.

(6) Supervision of medical maintenance and repair service.

(7) Supervision of spectacle fabrication and repair service.

12. Personnel

a. Functions normally retained at theater Army headquarters include—

(1) Personnel planning, including the estimation of medical service personnel requirements.

(2) Submission of consolidated personnel requirements.

(3) Assignment of key officer personnel.

(4) Assignment of Army Medical Service personnel to major commands, and transfer of such personnel when transfer involves a change of major command jurisdiction.

(5) Maintenance of theater medical service strength statistics.

(6) Professional classification of Army Medical Service officers under policies established by The Surgeon General, Department of the Army.

b. Functions normally decentralized to theater army logistical command headquarters within its area of responsibility include—

(1) Implementation of personnel policies of theater Army headquarters.

(2) Personnel assignments other than those of key personnel.

(3) Processing of recommendations for professional classification of Army Medical Service officers.
(4) Consolidation of personnel requisitions.
(5) Supervision of civilian employment in medical installations.
(6) Maintenance of records of Army Medical Service personnel by professional qualifications and military occupational specialty.
(7) Supervision of assignment of enemy and allied protected personnel to medical installations.

13. Medical Records and Statistics

Compilation and evaluation of medical records may be retained as a responsibility of theater Army headquarters or assigned as a responsibility of theater army logistical command headquarters.

14. Surgeons of Other Commands

The responsibilities of surgeons of subordinate command levels are discussed in succeeding paragraphs.

CHAPTER 3

MEDICAL SERVICE, GENERAL CONSIDERATIONS

Section I. GENERAL CHARACTERISTICS OF MEDICAL SERVICE

15. Missions

The Army Medical Service is a supporting service of the combat elements of the Army primarily concerned with the maintenance of the health and fighting efficiency of the troops. The mission of the medical service in a theater of operations is to conserve manpower by recommending, and providing technical supervision of the implementation of, measures for safeguarding the health of the troops, effective medical care, and early return to duty; and to contribute directly to the military effort by providing adequate medical treatment and rapid orderly evacuation for the sick and wounded.

16. General Responsibilities

The general responsibilities of the medical service are—

a. The evacuation, care, and treatment of patients.

b. The recommending of measures necessary to insure the health of troops.

c. Assistance to the civil affairs unit in public health matters.

d. The procurement, storage, and distribution of medical supplies.

e. The training of all personnel of the medical service, and supervision of the training of all personnel in hygiene, first aid, and military sanitation.

f. The preparation, classification, and preservation of records of sickness and injury for the information of higher authority, for use in future planning, and for assistance in the future adjudication of claims.

g. The submission of timely information and recommendations to the proper authority upon all matters within the scope of the medical mission.

h. The evacuation, care, and treatment of sick and injured animals.

i. The provision of veterinary food inspection service.

17. Medical Plans and Operations

Adequate and timely planning which provides for employable and sufficient means *within* the theater of operations is necessary for effective operation of the medical service.

a. The commander must insure that adequate means are made available for the accomplishment of the medical mission. The commander weighs his medical means with the same degree of care used in evaluating ammunition, food, gasoline, and other combat requirements.

b. It is a staff function to elaborate the details necessary to carry decisions into effect. Medical service must be planned and operated in conformity with the plans and general policies of the commander. The surgeon must therefore be conversant with the plans and intentions of the commander at all times so that timely recommendations can be made.

c. Effectiveness of medical service frequently is a function of time rather than of thoroughness. Simple measures, instituted early, often contribute more to combat efficiency than more elaborate measures instituted too late.

d. Medical plans are adequate only when they provide employable and sufficient means *within* the theater of operations. Epidemics and interrupted evacuation from a theater to the zone of interior are ever-present threats. The possibility that evaluation of enemy capabilities has not reflected the effects of new weapons and techniques in increasing casualty rates cannot be disregarded.

e. Casualties never adjust themselves to conform to the medical means available at a given point at a given time. Therefore, planning must incorporate measures for meeting unpredictable peak loads.

f. Any decision must be based on the constantly interplaying factors of time, distance, dispersion, casualty rates, distribution of units, receipt of units, evacuation policies, available methods of evacuation, availability and priority of equipment, availability and priorities of transportation (water, surface, and air) ; the time lag between the requisition and development of hospital plant sites; the necessity for providing a reserve; and the ever-changing strategic and tactical situation. No one of these factors is entirely independent of the other. The larger the theater of operations and the faster the progress of military operations, the more important they will become and the more difficult to evaluate. Only when a situation becomes static is it possible to approach ideal planning and operating conditions.

18. General Doctrines

The operation of the medical service in a theater of operations is based upon certain fundamental principles or doctrines.

a. Commanders at all levels are responsible for the provision of adequate and proper medical care for troops of their command.

b. Medical service must be continuous from the time of onset of disease or injury to the final treatment.

c. A patient will be moved no farther to the rear than that point where he can receive the medical care required for return to duty.

d. Sorting of the fit from the unfit will take place at each medical installation in the evacuation system, the fit returned to duty and the unfit retained for treatment or evacuated farther to the rear.

e. Patients in the combat zone will be collected at medical installations along the general axis of advance of the units to which they belong.

f. Medical units of the combat zone must possess and retain a high degree of mobility that will enable them to operate in direct support of combat elements.

g. Mobility of medical treatment facilities in the combat zone will be assured through prompt and continuous evacuation by units operating in the rear.

h. Medical units must be so disposed as to render the greatest service to the greatest number.

i. Medical treatment will be standardized throughout all levels of medical care to guarantee consistent treatment anywhere in the evacuation system.

j. That fraction of the sick and injured that will require a long period of medical care must be rapidly moved to the rear with the least possible interference with combat operations.

k. The capabilities of nonmedical personnel for self-aid and buddy-aid are developed to maximum effectiveness through training which teaches simple treatment techniques based on improvisations with materials normally available in the battle area.

l. Each level of medical service employs the simplest standard treatment procedure possible to provide the desired benefits to the patient.

19. Prevention of Disease and Injury

The need for physical fitness is a critical factor in the combat efficiency of troops. In past wars, battles have been lost because

the troops were immobilized by disease. Although in every war situations arise in which the health of troops must be temporarily subordinated to military necessity, consistent disregard of the health of troops leads ultimately to disaster. Military operations require that plans include measures for prevention and control of disease and control of sanitation. The Army Medical Service coordinates closely with civil affairs units on public health measures for the reduction of health hazards to troops.

a. The prevention of disease and injury is one of the most important fuctions of the medical service. Every contact and activity which may affect an individual's physical fitness is a proper concern of the surgeon.

b. The surgeon is responsible for recommending, and providing technical supervision of the implementation of measures for prevention of disease and for protection against health hazards and practices as a means of conserving manpower and maintaining a high rate of productive effort among troops.

c. It is the responsibility of the unit surgeon to keep his unit commander fully informed of the sanitary problems in his command and make appropriate recommendations for the correction of any health hazards.

d. The unit surgeon is responsible for evaluating the emotional state of the command in order to assist the commander in maintaining maximum unit effectiveness.

20. Supply

a. Responsibility. The surgeon at each level is responsible for the estimation of requirements and for the procurement, storage, and distribution of all medical supplies and equipment necessary for the care and treatment of the sick and injured. (For further information on responsibilities, supply systems, and procedures, refer to chapter 18.)

b. Property Exchange. In transferring a patient from one medical installation to another there are certain medical properties that cannot well be separated from him. Such property includes blankets, splints, tourniquets, and litters. To prevent rapid and unnecessary depletion of the supplies and equipment of the transferring installation, the receiving installation is charged with turning over to the transferring installation the same number of the same items of medical property. This procedure is termed "property exchange" and must be practiced, to the fullest extent possible, through all phases of evacuation from the foremost aid station back through the fixed hospitals of the communications zone.

21. Supplies Subject to Capture

Military medical equipment and supplies, in danger of imminent capture and not required for the care of sick and injured military personnel whom the Army may be compelled to abandon to the enemy, will be evacuated to the greatest extent possible. However, if such medical materiel cannot be evacuated, it shall not be intentionally destroyed.

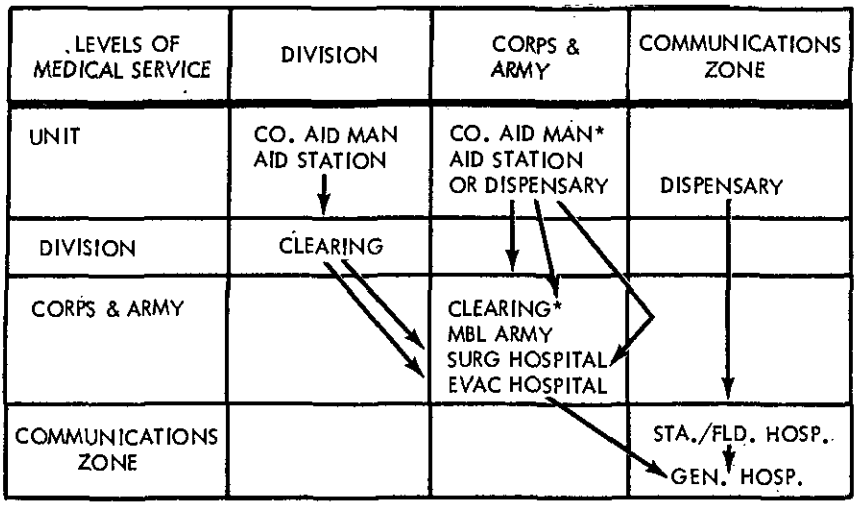
Section II. FUNCTIONAL ORGANIZATION AND GENERAL TACTICAL CONSIDERATIONS

22. Organization and Operation

a. Functional Levels of Army Medical Service. Medical service in a theater of operations is organized into four functional levels. They are unit, division, corps and army, and communications zone medical services (fig. 1). These levels correspond to the levels of general administrative responsibility, but do not necessarily follow the chain of tactical command.

(1) *Unit medical service.* Unit medical service is normally provided by medical service elements which are organic to units the size of a battalion/squadron or higher of the arms and services (except medical). Units without such organic elements or widely dispersed units are furnished unit medical service on an area basis (*b* below) or by the attachment of medical service personnel. Unit medical service personnel provide their unit with unit medical service to include emergency medical treatment of casualties; collection and evacuation of casualties; establishing and operation of aid station(s) for the reception, sorting, and temporary treatment of casualties; operation of a dispensary for the routine care and treatment of the sick and injured; and keep their commanders advised as to unit sanitation, necessary measures for disease prevention, and the health of the command.

(2) *Division medical service.* This is a highly mobile medical service. The division medical battalion (infantry and armored divisions) and the division medical company (airborne division) provide division medical service, which includes the evacuation of patients from unit aid stations (dispensaries), the operation of division clearing station(s), and the furnishing of medical supply and emergency dental service for the division (chapters 4, 11, and 12).



* NOT ALWAYS PRESENT

Figure 1. Schematic echelonment of theater medical treatment and evacuation functions.

(3) *Corps and Army medical service.* Corps and Army medical service is characterized by the presence of hospitals capable of affording more detailed medical care to the patient. Normally, corps has no organic medical service *but may* assume operational control of such units as may be allocated by the field army (ch. 13).

(4) *The medical service in communications zone.* Medical service in the communications zone is dominated by large fixed hospitals affording to the sick and injured detailed and prolonged medical care (ch. 16).

b. Area Medical Service. An area medical service is provided on an area basis to units which have no organic medical service personnel. This concept of medical service involves the delineation of support responsibility by geographical area. It includes the provision of unit medical service to organizations which have no organic medical service personnel, and the provision of required higher levels of medical support. Organization of medical support means, under the area service concept, is normally employed in supporting the nondivisional forces of the combat zone and all forces of the communications zone. Medical units required for this service are allotted based upon troop strength and are established when troop concentration dictates. (For area dental service functions, refer to chapter 20.)

23. Tactical Doctrines of Medical Service

From the mission and characteristics of medical service originate certain doctrines governing the tactical employment of medical troops. The more important are—

a. Flexibility. Medical service must possess flexibility. The allotment of medical means is based upon the military situation and the tactical plan in being at the time. Changes in the situation may dictate rapid redistribution of medical means. An adequate reserve is the most positive assurance of flexibility. So long as the commander retains a reserve of combat units, a commensurate reserve of medical units must be held to support this reserve when committed. When his medical reserve has been exhausted, or depleted to the point of inadequacy, the first concern of the surgeon is to reconstitute a suitable reserve from units already committed. This reserve may be in unit capacity as well as designated units (example: bed credits in several hospitals). If this is impossible, he must seek reinforcements.

b. Mobility. Mobile medical treatment units must retain their mobility. The essence of adequate medical service lies in maintaining contact with the combat elements supported. Medical treatment units should retain mobility as long as possible by only partially establishing their stations until the demands of the situation require commitment of their total means. Once entirely committed, the only way that the mobility of a medical treatment unit can be regained is by promptly evacuating the patients therein. An immobilized medical treatment unit can continue its support only in a "stabilized" situation. In the advance, it must be kept mobile or replaced with another unit. In a retrograde movement, it may necessarily have to be abandoned.

c. Zonal Responsibility for Evacuation. The zone of responsibility for evacuation assigned to any medical unit lies to its front rather than to its rear. No level of medical service is normally given a responsibility for evacuation that extends farther than its rearmost medical installation. Unit level medical service receives medical evacuation support from division, and division level medical service is provided this type of support by field army, or in some instances by corps.

d. Promptness of Treatment and Evacuation. In combat, the necessity for providing medical service for casualties arises the minute contact is gained. Casualties begin to accumulate as soon as troops come under fire, and medical care and prompt evacuation are as important then as they ever will be. Rendition of prompt and competent treatment and evacuation will tend to reduce rates

of mortality and noneffectiveness. Therefore, this dictates that medical units in support of combat elements should be at all times disposed in a manner that will facilitate their entry into action. The surgeon must keep abreast of tactical developments in order to be ready to initiate combat medical service without delay.

e. Maximum Medical Support. Maximum medical support is given to combat elements that have the most important missions. This agrees with the tactical procedure of placing the bulk of combat means behind any decisive effort; but there is another reason for such a distribution of medical means. The task of the medical service is greatly influenced by the frontages occupied by, and the movement under fire of, combat troops. In general, the main attack of combat troops is expected to make the greatest progress. This again indicates a denser concentration of troops at that point than at other parts of the front, and more movement under fire. These two factors will produce a greater proportion of casualties than would normally occur in other parts of the command.

f. Medical Treatment and Evacuation as Continuing Functions. Medical service must be continuous from the time of onset of disease or injury to completion of final treatment. The operation of essential medical installations will not be terminated until their functions have been assumed by another agency. Evacuation is a continuing function, and one that cannot be suspended while adjustments are being made. A reasonable time must elapse after the opening of a new installation before the old one is closed, in order that patients already en route to the old installation may be received. The length of this time lag in closing the old station will depend upon the agencies to be advised of the change and the length of time required for them to divert their patients to the new site.

g. Allotment of Medical Means. The support required by a forward medical unit is determined by the expected number of casualties and the rate at which they can be collected. Neither element is governing, and they must be considered together in a medical estimate of the situation and in the allotment of medical means.

h. Methods of Providing Medical Service Support.

(1) Direct medical service support is provided by a medical unit having a mission to support another specific unit. The medical unit receives and executes missions directly on call from, and gives priority of effort to, the supported unit. It is not attached to a supported unit but remains under the command of its normal higher commander. This is the normal support procedure. However, when because of distances involved and/or inadequate communications,

the supporting unit commander is unable to control the supporting means involved, the means may be attached to the supported unit which would then assume the mission of the supporting echelon. For example, if a battle group task force is to operate at such a distance from the main body that evacuation from it is difficult, it should be augmented by the attachment of ambulance and clearing elements. On the other hand, if it is anticipated that evacuation to division installations from a distant command can be accomplished, there is no reason for the division medical service to repudiate its responsibility for providing direct support thereto.

(2) General medical service support includes that support provided by medical units which furnish medical services not directly identifiable with specific units providing area medical service, and which are designated to reinforce direct support medical units.

i. Reinforcement of Organic Medical Means. A distinction should be made between an echelon's need for help in accomplishing its own mission, and the necessity of giving it the means of assuming the function of the supporting echelon. In the former situation, when the organic capabilities of a supported unit are insufficient for it to accomplish its mission, reinforcement means must be provided by direct attachment to the unit. For example, an element spread over a wide area may require the attachment of ambulances for its "internal" evacuation, which function is within the prescribed mission of the element.

Section III. EVACUATION AND HOSPITALIZATION

24. Evacuation System

Evacuation is the process of removing patients from the battlefield or other location and subsequently moving them through the evacuation system as necessary. The term "evacuation system" is applied to the linear system of successive agencies and installations in the system engaged in the collection, treatment, transportation, and hospitalization of the sick and injured. The most forward installation of an evacuation system in a theater of operations is usually an aid station and the rearmost installation a general hospital (figs. 2 and 3). The forward installations are mobile, small, and numerous. From the combat area to the rear, each successive medical installation provides a more detailed type of medical care.

25. Major Problems of Evacuation

One of the most difficult medical tasks, and in combat one of the most important, is the evacuation of patients. Commanders at all levels must realize the magnitude and the importance of this function. The evacuation of patients is in the nature of a major withdrawal. The task is difficult under the most favorable circumstances because of the numbers involved and other complicating factors. In forward areas especially, evacuation may meet with trying conditions of weather, terrain, and combat. Evacuation must be made against a constant forward flow of combat troops and supplies and with a minimum of interference to these vital activities. Patients must be gathered as individuals from the most forward elements of the combat forces; they will require individual care and treatment through all stages of their evacuation, and a large proportion will require carriage in some form. Efficient evacuation is expensive in manpower and transportation means. Throughout the evacuation of patients, property exchange must be carried on in spite of difficulties confronting such a procedure.

26. Sorting (Triage) of Patients

Sorting of patients is the process of sorting sick and injured on the basis of the urgency and type of condition presented, so that they can be properly routed, to medical installations appropriately situated and equipped for their care. It includes establishing of priority for treatment to assure medical care of greatest benefit to the largest number. In addition, it serves to determine the ultimate destination of each patient as early as possible in his movement through the evacuation system. Sorting is the key to the effective management of large numbers of casualties. No patient must be evacuated farther to the rear than his physical condition requires or the military situation demands. The sorting of the fit from the unfit is therefore a most important function of every medical installation. Every case evacuated without sufficient reason imposes an unnecessary burden upon three agencies: the man's organization, which must go shorthanded until he is returned or replaced; the replacement system, which must procure, equip, train, and transport a man to take his place; and the medical service, which must provide evacuation means, hospital facilities, and trained medical personnel to care for him. The problem created by one such case is not impressive, but the total effect of indifferent sorting of patients might well jeopardize the success of any combat operation. Unnecessary evacuation of patients is of the nature of subsidized straggling. When decision

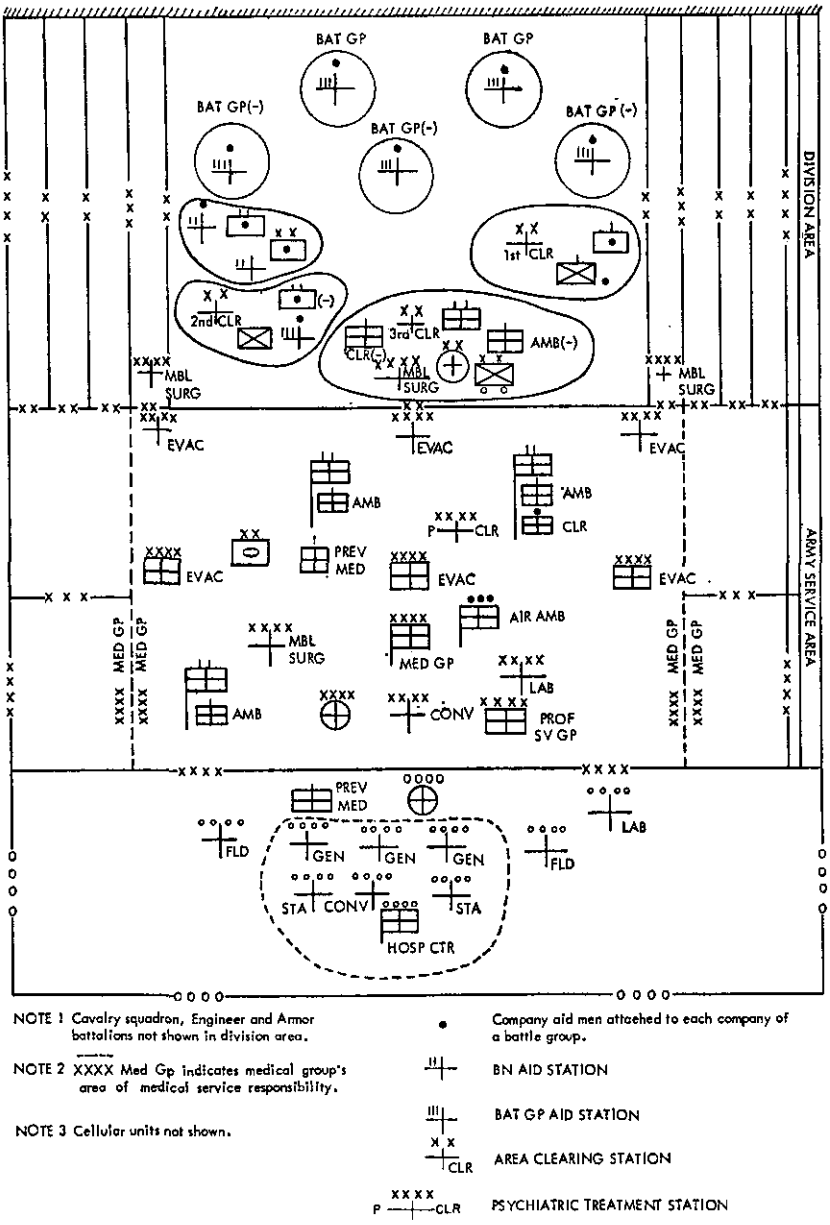
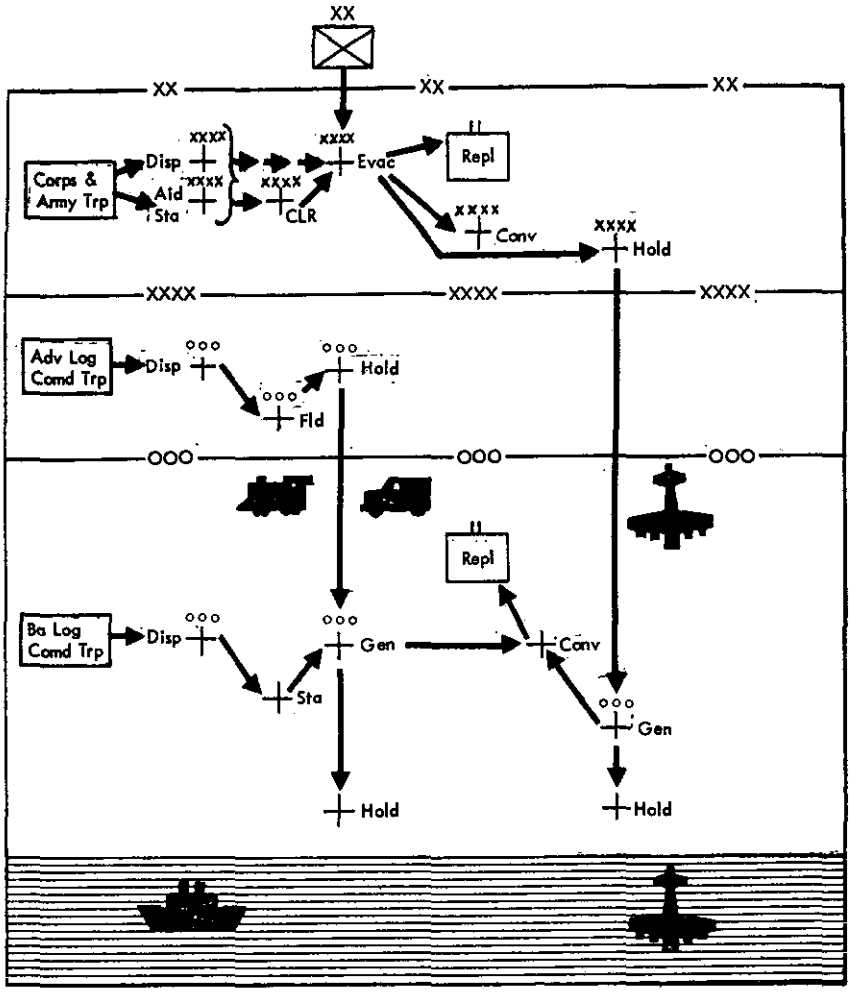


Figure 2. Schematic diagram of Army Medical Service facilities in theater of operations.

for hospitalization of an individual is made, the illness or injury either is incapacitating in fact, or of such character that serious consequences would result if the soldier was returned immediately to full duty. This decision is often difficult when there is little time for observing cases. When the tactical situation will permit,



NOTES 1. In some instances a general hospital may be located in the advance logistical command.

2. Patients may be evacuated from mobile army surgical hospitals and evacuation hospitals in the army area direct to general hospitals in the communications zone.

Figure 3. Treatment and evacuation systems—field army and communications zone.

reasonable doubt must act in favor of the individual. Proper attention to the sorting of patients can materially reduce the number of cases evacuated unnecessarily.

27. Psychiatric Patients

One of the facets of the theater medical service which requires particular emphasis is the handling of psychiatric patients. Of these the group suffering from "combat fatigue" or "combat ex-

haustion" is probably the most significant from the standpoint of manpower conservation. Nuclear warfare, the requirement for dispersion and the concept of almost continuous movement on the battlefield with attendant poor environmental health conditions will, in all probability, impose a greater strain upon combat personnel and their *leaders* than any experienced to date. Inasmuch as these cases must be handled in a manner somewhat different from the majority of sick and wounded, certain basic principles must be kept in mind.

a. Unit Commander's Responsibility. Under the stress of combat, the medical service should be burdened only with personnel who actually require professional medical care. The unit commander must at all times be alert to the early symptoms or significant predisposing circumstances of emotional disturbance. He should have the means at his disposal of affording the battle-weary soldier the brief rest and change of environment which will render him again effective. To deny him this preventive measure is to increase the period for which he is ultimately noneffective, and possibly to lose his services to the Army completely.

b. Treatment as Far Forward as Possible. The farther forward that emotionally disturbed patients are treated, the greater are the chances of returning them successfully to combat duty.

c. Centralization of Facilities for Screening and Treatment. These facilities are available at the battle group aid station, aid stations of separate battalions, the neuropsychiatric sections located at a clearing station within the division (except the airborne division), and the psychiatric treatment facilities within the field army and the communications zone.

d. Avoidance of Hospital Atmosphere. Although emotionally disturbed patients present genuine sickness, most of them do not require typical hospital facilities, and actually such facilities may be detrimental to their recovery. In order to avoid a hospital atmosphere, emotionally disturbed patients wear field uniforms and sleep on standard cots at all medical installations devoted to their care.

28. Concentration of Patients

It is both uneconomical and inefficient to undertake the care, treatment, and continuous evacuation of the sick and injured in very small groups. When the combat situation permits, medical units in the combat zone should concentrate patients collected from two or more forward installations.

29. Abandonment of Patients

In rapid movements to the rear, it is frequently impossible to evacuate all patients with the means made available to the medical service. In such a situation three courses of action, either alone or in combination, are possible. The speed of the movement may be retarded to permit evacuation with the transportation available; the medical service may be reinforced; or some of the patients, with a detachment of medical troops sufficient for their care, may be abandoned to the enemy. This latter is a command decision. It is the duty of the surgeon to present to the commander information necessary for him to arrive at his decision, but the commander alone must decide whether or not to abandon his patients in whole or in part.

30. Choice of Transportation

The military situation, type of terrain, road net, rail net, and availability of air transport means are important factors which govern the choice of transport for moving patients. In any instance, they must be moved by the safest, the most comfortable, and most efficient transportation available. Speed of evacuation is frequently most important. Near the immediate forward areas, litters carried by bearers are ordinarily employed. Wheel transport is substituted for manpower as soon as the situation permits. If there is an insufficient number of ambulances, other vehicles returning to the rear may be pressed into service. As soon as practicable, ambulance trains, evacuation ships, or air transport are substituted for the motor vehicle. When the weather and the tactical situation permit, the helicopter ambulance is used to improve the speed and flexibility of the medical service and to provide rapid evacuation for patients requiring immediate treatment. The helicopter ambulance may be used as far forward as the tactical situation permits, normally collecting patients from aid stations, predesignated collecting points, and clearing stations.

31. Distribution of Casualties in Time and Space

Experience tables, setting forth the distribution of casualties by units by days of combat, do not present an accurate picture of the distribution of these casualties in the smaller units in time and space. If a division suffers 12 percent casualties in one day of combat, it is not to be inferred that each subordinate unit of the division suffers equally, or that 0.5 percent of the casualties occurs each hour of the 24, or even that 1 percent occurs each hour of daylight. A company may be almost destroyed in an hour; a battalion may lose 50 percent in a day; and other units may

have no battle casualties. This irregular distribution of casualties in time and space may place an insurmountable burden on certain medical agencies at at time when others are relatively unoccupied. This is particularly true in nuclear warfare. This fact should be given important consideration in all medical planning.

a. Areas of Casualty Density. Since units suffer unequally, it follows that casualties are rarely distributed evenly over a battlefield. They tend to be concentrated in "areas of casualty density." The probable locations of areas of casualty density can be deduced from an analysis of the tactical plans in connection with a study of the ground contours. They will be found where the heaviest concentration of fire can be brought to bear upon the densest population of troops. This situation ordinarily obtains in those areas of major tactical importance, for here the commander concentrates his combat power and here the enemy must oppose to the limit of his strength. Normally, troops moving under fire suffer heavier losses than those remaining in position. In the offensive, the main attack is expected to advance more rapidly than the secondary attacks. Also, there is ordinarily a greater concentration of troops in the main attack. For these reasons, a higher casualty rate can be anticipated in the region of the main attack. It is therefore essential that the surgeon obtain adequate information of the enemy situation and the plan for the employment of combat units. This is necessary in order to enable him to properly allocate the medical service so that continuous preferential support will be available to troops in areas of highest probable casualty density. This information must be available to the surgeon in time to permit medical units to be moved to the battle positions before the action begins.

b. Natural Lines of Drift of Wounded. Wounded men who are able to walk and who are seeking treatment for their injuries, normally, will make their way to the rear unaided. Some follow the only route they know, which is the one over which their organization advanced, even though it may be exposed to hostile fire. Others instinctively avoid enemy observation and fire, particularly machine gun fire, by following ravines, stream beds, and other defiladed byways. These routes are known as natural lines of drift of wounded and must be considered in locating medical installations in combat areas.

32. Evacuation Lag

It is practically impossible to transport the wounded soldier throughout the evacuation system without delays. Delays are inevitable. Delays may be inherent in the system, or they may arise

from circumstances within a particular military situation. The sum of such delays is known as "evacuation lag." This is a factor of great importance in developing a medical plan. If not properly considered, it may immobilize medical installations in the combat area as well as further retard the process of evacuation. The more important causes of evacuation lag are—

a. Delays Due to Enemy Action. Hostile fire may seriously interfere with or completely prevent all primary evacuation from the field or from aid stations.

b. Delays Due to Combat Requirements. The movement of troops and supplies may halt the movement of wounded.

c. Difficulties in Transportation by Manpower. Litter bearers may have to carry patients for long distances, over difficult terrain, or under heavy fire in which case circuitous routes or frequent halts may be required. This is a most laborious task, and fatigue soon reduces efficiency.

d. Treatment En Route. At each medical installation from forward to rear areas, patients are examined and given such treatment as may be essential to the saving of life or limb, or to prepare them for movement to the rear. Certain patients are nontransportable for a time because of such things as surgical shock or hemorrhage.

33. Interdependence of Evacuation and Hospitalization

Each of these functions is dependent on the other for its efficient operation. Evacuation and hospitalization must always be considered jointly. Sick and wounded personnel must be properly prepared for evacuation and given constant care and treatment en route. The location of hospitals near good lines of communication is most desirable. So far as practicable, fixed hospitals will be located on principal axes of travel. The availability of sufficient fixed beds alone does not solve the problem of the medical service; there must also be sufficient means whereby patients can be transported to these hospitals and effectively distributed among them.

34. Evacuation Policy

In order to plan and operate a medical service efficiently, it is necessary to know to what extent patients will be retained for treatment at a given level of the service. This is done by considering the patient in the light of the length of time it is anticipated will be required to return him to duty. Thus, in planning a hospital system, it is necessary to decide, or assume, that

it will retain for treatment only those patients who will return to duty within a given period. This period, in days, is referred to as the evacuation policy. In another sense, this restriction is used as an operational tool. If the hospitals at a given echelon are crowded, the surgeon reduces the number of patients retained, by directing a lesser evacuation policy. The evacuation policy at any level has a significant effect upon the requirements of the next higher echelon of medical service—not only from the standpoint of hospital facilities, but also in evacuation means. This is particularly true at the theater level. For this reason, the evacuation policy of a joint theater of operations is established by the Secretary of Defense with the advice of the Joint Chiefs of Staff, and, upon recommendation of the theater commander.

35. Hospitalization

The term "hospitalization" is used to indicate the medical care and treatment provided at a hospital for serious cases or those needing care for a long time, as contrasted with emergency medical treatment or outpatient treatment rendered at a hospital.

a. Objective. The objective of all hospitalization is to return a maximum number of patients to duty within a minimum period. Such individuals, because of previous training and experience, are the most valuable of all replacements. A certain proportion of patients recover without being fit for duty with combat or combat support units. Their disposition will be in conformity with theater policies.

b. Classifications. Hospitals are classified as fixed and nonfixed. Fixed hospitals include numbered general hospitals, numbered station hospitals, and field hospitals when the latter are employed as fixed hospitals. Nonfixed hospitals include mobile army surgical hospitals, evacuation hospitals, convalescent centers, and field hospitals when the latter are employed on other than fixed hospital missions.

36. Concept of Patient Care

The highest standards of medical practice are demanded at all times and under all conditions. The idealism that characterizes the practice of medicine is challenged to demonstrate itself under conditions not encountered in civil practice. However, the peculiar relationship between the patient and physician in civil practice under static conditions is unsuited to and impractical under the dynamic conditions that exist in a theater of operations and under mass casualty situations. Under dynamic conditions, medi-

cal means, always limited, must be so distributed as to render the greatest service to the greatest number. To devote a disproportionate amount of time and effort to one casualty at the expense of the treatment of the mass of other casualties is to subordinate the common welfare of all to one individual. It is important that emphasis be placed on the treatment of those conditions commonly encountered in military practice rather than on rare and unusual types of casualties. The orderly processes and policies of evacuation are not to be hindered because of scientific interest in certain patients.

CHAPTER 4
MEDICAL SERVICE IN INFANTRY DIVISION

Section I. GENERAL

37. Components

Medical service in the infantry division consists of unit medical service and division medical service (fig. 4). Unit medical service is provided by medical elements organic to units the size of a battalion, or larger, of the arms and services (except medical, signal, and elements of the division trains) and is operated under the command of the unit to which assigned. Division medical service is provided by the infantry division medical battalion (one per division) operating directly under division control. The basic organization of unit medical service with the infantry division battle group, the battle group medical platoon, and that of the infantry division medical service, the infantry division medical battalion, are shown in figures 5 and 6.

38. Requirements Essential to Adequate Division Medical Service

a. General. Rearward elements of the division must furnish close support to the more forward units. Although unit medical service of the battle groups and separate battalions of the arms and services furnishes continuous medical service to subordinate elements of the division, its scope and capacity are limited. Prompt evacuation of noneffectives under its jurisdiction is vital to efficient operation.

b. Mobility. Since the impetus of evacuation is from the rear, rearward collecting units must have sufficient mobility to be able to evacuate wounded, sick, and injured (hereafter to be referred to as patients) from the medical platoons. When the mobility of a medical unit is jeopardized by the accumulation of patients who are not adequately prepared for further evacuation, the mobility of the unit is maintained by leaving a small holding detachment with such patients and moving the main portion of the unit closer to the troops served. The mobility of the clearing station may be maintained by leapfrogging, or by echeloning the clearing platoons or sections thereof. The mobility of a medical unit is not to be measured solely by the speed at which it can cover ground

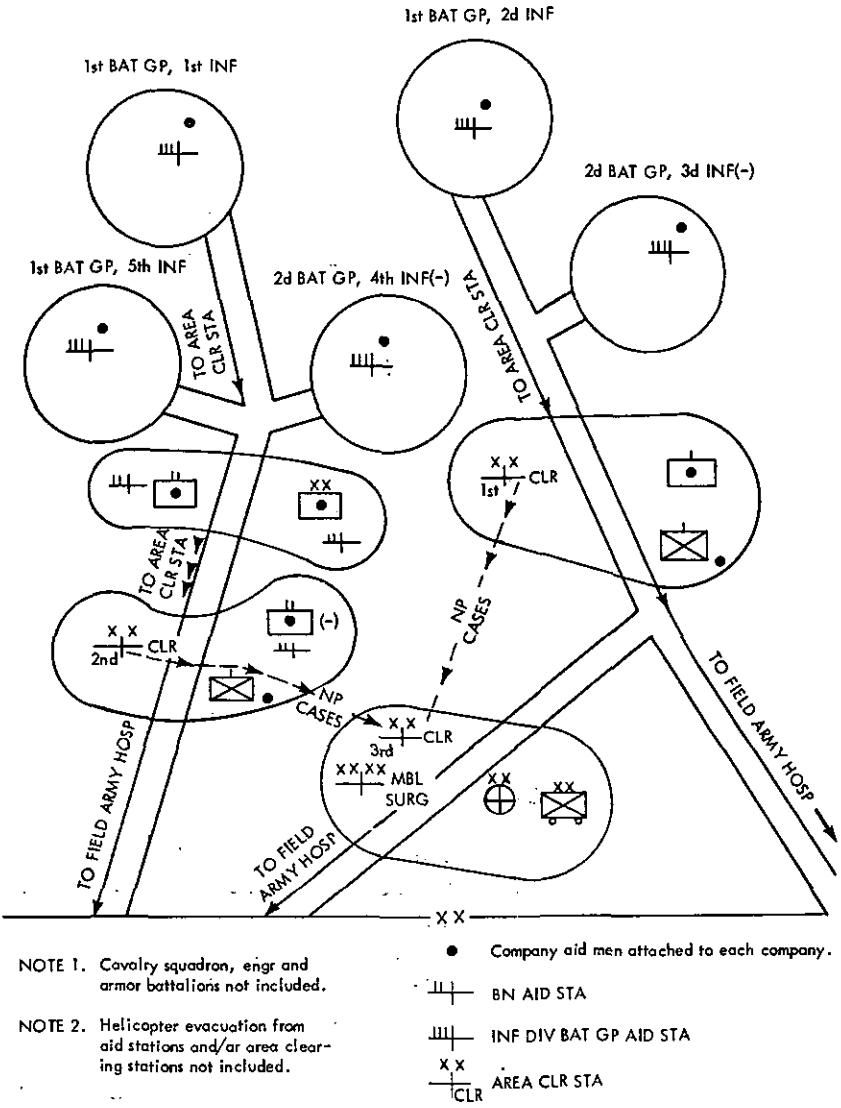


Figure 4. Schematic diagram of medical service in infantry division.

with its equipment and personnel when once loaded on transport. Rather, it is to be measured by the speed with which it can operate at one place, then suspend, load, move, and begin functioning in another place. The following factors must *all* be considered:

(1) Each trip in evacuation is a round trip, whether such a trip be made by a litter squad, an ambulance, helicopter, or an ambulance train. Consequently, the transport of the evacuation agency must traverse at least twice the distance traversed by the combat troops it is supporting.

(2) The time required in establishing and closing its installation and in gaining contact with combat elements must be charged against mobility.

(3) During the time that a medical unit is unable to promptly dispose of the patients in its care, it is at least partially immobilized. Consequently, the mobility and efficiency of its supporting units is a most important factor in the operation of every medical unit.

c. Flexibility. It must always be remembered that any tactical operation may, without much advance warning, depart from the initial plan, either as the result of enemy counteraction or of a decision of the division commander to exploit newly discovered weaknesses or errors on the part of the enemy. The medical service must, therefore, be able to meet without delay such sudden changes in the tactical situation. As in the case of combat elements, maintaining an adequate reserve contributes to this flexibility. The use of standing operating procedures must not be permitted to encourage rigidity in medical service, either in planning or in execution.

d. Economy of Force. No more troops should be committed and no more installations should be established than are required for the task at hand or for the obvious needs of the immediate future. Once committed, a limitation is imposed on the availability of a unit for other employment. The establishment of an installation immobilizes that unit for a period, the length of which will depend upon the elaborateness of the installation and the number and type of casualties in it.

e. Decentralization of Control. Until the advent of mobile combat elements—notably mechanized units/mobile task forces—the question of partially decentralizing the control of division medical service arose only when a part of the division, such as a battle group-artillery combat team, operated at a distance from the bulk of division medical installations. Under these conditions centrally controlled medical service became impracticable or impossible. In such situations it was customary to attach to the distant force a suitable element of the division medical service. This element, operating as a unit controlled by the commander of the distant force, provided such medical service as its organization permitted. However, in the rapidly moving attacks of mechanized units/mobile task forces, and particularly when these are staged at some distance from supporting foot troops which might be counted upon to assist in the collection and evacuation of the patients of the mechanized unit/mobile task force, the problem

is quite different. It frequently will be impossible for division medical service to establish and maintain the close contact with supported units necessary for the effective evacuation of the combat elements. Situations of this type may be caused by widely dispersed formations, mobile operations, and bypassed enemy units or infiltrators which may seriously hinder or slow proper treatment and evacuation of casualties being handled through normal land routes or means. In such instances, it will probably be necessary to reinforce unit medical platoons with personnel and ambulances of the division medical service, and at the same time pass down to subordinate unit commanders the responsibility for collecting their own patients and evacuating them to some central axis or designated collecting points. Evacuation from these collecting points can be effected by field army air ambulances or, if the situation permits, by motor ambulances of the division medical service.

39. General Pattern of Evacuation

Before considering the operation of the various components of the infantry division medical service, it will be well to follow one wounded man from where he lies on the battlefield through the various components of division medical service.

a. Wounded on the battlefield, the soldier will first apply self-aid and then receive medical aid from a company aid man who has accompanied his unit into action. Next, if it is possible for a medical aid-evacuation team to operate its frontline ambulance to the site of the patient, the members of this team will place the wounded soldier in the ambulance and evacuate him to the battle group aid station. However, if it is not possible to do this, the medical aid-evacuation team will place the patient on a litter and carry him to a casualty collecting point, known as the company aid post. At the collecting point or company aid post, he is transferred to a front line ambulance and taken to the battle group aid station. Here he will receive such emergency care as is considered essential and either be returned to his unit or prepared for further rearward movement. This medical service has been carried on by medical personnel of a battle group medical platoon.

b. A motor or air ambulance comes forward to evacuate him from the battle group aid station. Evacuation by motor ambulance is to a clearing station of the infantry division medical battalion which is the most rearward medical installation of the division in the normal chain of evacuation. Evacuation by air ambulance can be either to a division clearing station or direct to a field army hospital. In either case, the patient is further examined at the receiving treatment facility and, if necessary, pre-

pared for further rearward evacuation by motor ambulance or aircraft of the field army.

40. Equipment

a. Individual Equipment. Certain officers and enlisted men of the medical service carry on their persons equipment for use in rendering treatment and medical aid to the sick and injured.

b. Organizational Equipment. The equipment of an organization can be broken down into two basic types, general equipment and special equipment. The general equipment is that used in the general functions common to all military organizations, and the special equipment is that provided for the special functions of the unit. The special equipment of medical units is largely medical equipment.

41. Installations

When a medical unit establishes its temporary installation for combat and is ready to function, it is said to be *at station*, and specifically by the function it performs for example: aid station, established by medical sections or platoons; and clearing station.

42. Reinforcement

The source of reinforcements for the medical service may be within or without the division. The division medical service may be reinforced with units from a higher command or from the Army reserve. The medical requirements must be considered when augmentation of divisional strength by other elements, such as artillery, is planned. In certain situations, and particularly in emergencies, it may be necessary to reinforce the medical service from sources within the division. This was done frequently in the first and second World Wars. Some of these sources are prisoners of war, civilian labor units, and other troops of the division.

43. Support by Higher Commands

The field army is the normal source of support for division medical service. For all practical purposes, the administrative responsibilities of the corps are limited to those in connection with corps troops and those which may be delegated by higher authority (ch. 13).

44. Evacuation

Except in *unusual* situations wherein the division is compelled to evacuate its own patients beyond its rear boundary, the re-

sponsibility of the division for evacuation terminates when patients reach a division clearing station. Further evacuation is a responsibility of a higher command. Normally, division clearing stations are evacuated by ambulances of the field army medical service. Arrangements with the field army surgeon for evacuation are made by the division through command channels. This is a function of G4 (the general staff section concerned with supply and evacuation).

Section II. BATTLE GROUP MEDICAL SERVICE

45. General

Battle group medical service is the unit level medical service provided by the battle group medical platoon for an infantry division battle group within its zone of action. This medical service includes the provision of emergency medical treatment on the battlefield; collection and movement of the wounded from the battlefield to the battle group aid station; establishing and operation of aid station(s) for sorting, additional treatment, and evacuation, if necessary; the operation of a dispensary for the temporary treatment and care of the sick and injured of the battle group; and the supervision of sanitation, to include insect and rodent control, and communicable disease control within the battle group area.

46. Battle Group Surgeon

a. The battle group surgeon is a Medical Corps officer who is a member of battle group headquarters. He is a member of the battle group commander's special staff and, as such, acts in an advisory capacity. His duties are to—

(1) Keep the battle group commander informed as to the medical situation and capabilities of the medical service.
(2) Recommend measures for the prevention of loss of manpower due to disease, injury, and wounds.
(3) Make a medical estimate of the situation and submit a medical plan to the battle group commander, both estimate and plan to be based on the tactical plan.
(4) Maintain the medical records of the command.
(5) Supervise the movement of the sick and wounded within the battle group and all technical matters pertaining to the medical service within the battle group.
(6) Supervises training in medical subjects within the battle group.

b. In addition to the above duties, the battle group surgeon has operational control of the medical platoon and any attached medical units. He—

(1) Supervises the organization, employment, and training of the medical platoon.

(2) Makes necessary reconnaissance for the relocation of the battle group aid station(s).

(3) Supervises and assists in the treatment of the sick and wounded.

47. Battle Group Medical Platoon

The battle group medical platoon is organic to the battle group headquarters and headquarters company. The platoon is organized into a platoon headquarters, a treatment section, and an evacuation section (fig. 5).

48. Platoon Headquarters

a. The platoon headquarters of the battle group medical platoon is made up of—

(1) A Medical Corps officer who, in addition to being the platoon leader, also functions as the treatment section leader.

(2) The platoon leader who is assisted by a Medical Service Corps officer who also acts as the evacuation section leader.

(3) A noncommissioned officer who functions as the platoon sergeant and may also work in the battle group aid station.

(4) A medical supply specialist who procures and distributes all types of supplies to the platoon and also operates the radio at platoon headquarters.

(5) A general clerk who maintains all records for the platoon except those pertaining to supply.

b. The platoon headquarters operates a command post which is normally located at the battle group aid station site. The command post includes a message center operated under the supervision of the platoon sergeant. Messages received by radio, telephone, or brought in by ambulance or litter bearers are processed at this point.

c. The platoon headquarters maintains contact with the battle group headquarters and, as explained in *d* below, with the infantry division medical battalion. It is the responsibility of the platoon leader to insure that adequate contact and communications exist. Available means of communication include an adminis-

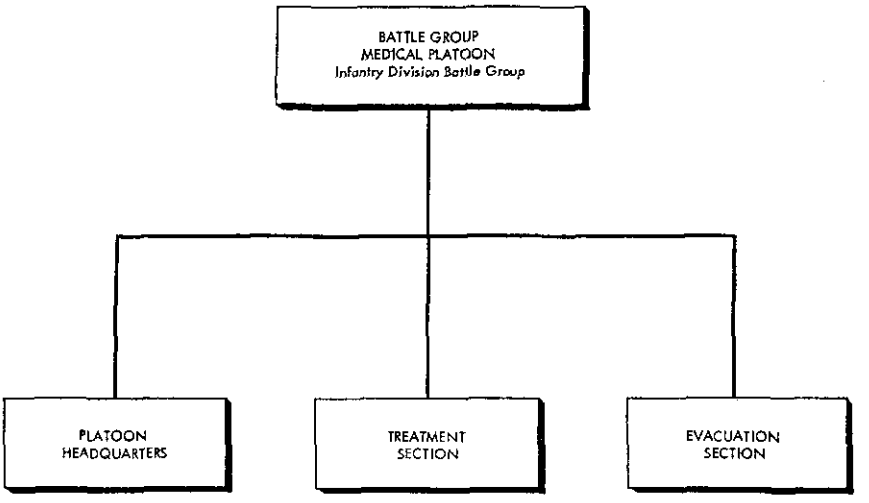


Figure 5. Organization of battle group medical platoon.

trative/logistic radio network, telephone, and written or oral messages carried by ambulance drivers or patients. The administrative/logistic radio network should be used for communication whenever practicable. Usually, telephone communication is provided between the battle group headquarters and the platoon headquarters. During combat, maximum difficulty with communications will generally be experienced in the early phase. The medical plan for the battle group will therefore include the location of the battle group aid station and the scheme of evacuation to be employed. Once established, communications are maintained by the method most practicable under the circumstances.

d. The commanding officer of the infantry division medical battalion has the major responsibility for maintaining contact with the battle group aid station and for its evacuation. He may maintain contact with the treatment section of the battle group medical platoon by means of radio, telephone, or through the ambulance platoon providing evacuation support thereto. The battle group surgeon, on the other hand, is responsible for keeping both the division surgeon and the division medical battalion commander informed as to the location of the battle group aid station and his evacuation requirements.

49. Treatment Section

a. Personnel. The treatment section of the battle group medical platoon is made up of—

(1) Medical Corps officer who is the platoon leader also functions as the treatment section leader. He keeps the

battle group surgeon informed of the medical situation at all times, and assists him in accomplishing the following functions:

(*a*) Establishing and operating one or more battle group aid stations.

(*b*) Personnally supervising the treatment of the sick and wounded of the battle group.

(*c*) Making necessary reconnaissance for the relocation of the battle group aid station.

(*d*) Supervising the treatment and evacuation of the sick and wounded forward of the aid station.

(*e*) Supervising the discipline, organization, employment, and training of the battle group medical platoon.

(2) A treatment section sergeant who supervises the activities of the treatment section as directed by the treatment section leader.

(3) A group of company aid men. In combat, in the field, and in some training situations, these aid men are attached to the companies of the battle group on the basis of one per rifle company and two aid men are retained in reserve at the battle group aid station. Company aid men operate a company aid post in the area occupied by the company to which they are attached.

(4) A group of medical aid men and aid station attendants who perform treatment in the battle group aid station as directed by the platoon leader.

b. Battle Group Aid Station. The duties of the personnel at the battle group aid station are not fixed but do follow a pattern. The platoon leader, being in command, must assume all responsibility for decisions at this point. The medical officers will perform the bulk of the professional duties, but the section sergeant may be assigned to handle slightly wounded cases, assisting the platoon leader in any manner the latter may direct. The medical assistants, medical aid men, and aid station attendants receive patients, sterilize instruments, administer hypodermic medication and intravenous solutions, take steps to combat shock, dress wounds, and set up and move equipment.

(1) *Location.* The battle group aid station is located at a site selected by the battle group surgeon and approved by the battle group commander. Normally, it is established as far forward in the battle group area as the tactical situation permits. It may be located farther forward in the attack than in the defense. The aid station is capable of splitting to meet tactical situations requir-

ing dispersal of elements of the battle group. Considerations governing the location of the aid station include the following—

(*a*) Tactical operation of the battle group.
(*b*) Expected areas of casualty density.
(*c*) Protection afforded by defilade.
(*d*) Convergence of lines of drift.
(*e*) Length of litter and ambulance haul.
(*f*) Cover and concealment.
(*g*) Security.
(*h*) Accessible evacuation routes to front and rear.
(*i*) Avoidance of likely targets, such as bridges, fords, important road junctions, firing positions, command posts, and supply installations.
(*j*) Location of open areas suitable for landing of helicopter ambulances.
(*k*) Communications.

(2) *Operation.* Only so much of a battle group aid station is established as the immediate circumstances require. Ordinarily, in combat, it may be divided roughly into a receiving and forwarding section; a section for the care of the seriously ill or injured patients; and a section for the care of other patients. When a gas casualty section is required, it should be located downwind from the rest of the station and some distance away.

(3) *Technical procedures.* The battle group aid station is not the place to initiate elaborate surgical procedures. Patients requiring further evacuation are given additional emergency medical treatment and prepared for evacuation. Constant effort is made to prevent unnecessary evacuation to the rear. Patients with minor wounds and illnesses are treated and returned to duty as soon possible. Specific functions performed at the battle group aid station include—

(*a*) Receiving and recording patients.
(*b*) Examining and sorting patients and returning physically fit to duty.
(*c*) Giving emergency medical treatment necessary and preparing patients for further evacuation when necessary.
(*d*) Preventing and treating shock.
(*e*) Providing temporary shelter and protection for patients.
(*f*) Providing temporary treatment for combat exhaustion cases.

(*g*) Notifying the battle group S1 of all casualties including nonbattle casualties, processed through the aid station and giving accurate identification and disposition as directed by unit SOP.

When treatment is completed, if further evacuation and treatment are necessary, this function is the responsibility of the supporting division medical service.

(4) *Movement.* The battle group aid station moves as directed by the battle group surgeon with the approval of the battle group commander. The station may move directly to a new location, or, if it is occupied with patients, advance part of the personnel and equipment to the new site. The remaining portion continues to function until such time as the advanced element is ready to receive patients. The rear portion then moves to the new location as soon as it has disposed of its remaining patients. This method of movement is called "movement by echelon."

(5) *Records.* The battle group aid station maintains a simple roster of the patients it treats. This is kept for the information of the battle group commander and for planning purposes. Emergency medical tags, initiated by enlisted medical service personnel, are verified at the station, signed by the medical officer, and attached to the patient. Further details regarding these tags are contained in paragraph 95.

(6) *Hot beverages.* These are provided for patients at the station. The quartermaster beverage pack for aid stations is available for this purpose and a two-burner gasoline stove is provided to prepare it.

c. Company Aid Men. Company aid men are attached to rifle companies of the battle group on the basis of one per rifle company and two are retained in reserve at the battle group aid station. It is extremely important that whenever possible company aid men remain with their supported units since the intimate contact of combat personnel with their supporting medical personnel is a major factor in maintaining morale of the fighting troops. Duties of the company aid men are to—

(1) Operate a company aid post and administer medical aid either on or off the battlefield.

(2) Place wounded in properly marked but protected location to await arrival of evacuation means.

(3) Direct walking wounded to battle group aid stations or to ambulance loading posts.

(4) Keep the medical platoon leader informed of the medical situation by means of messages carried back by evacuation means, walking wounded, or vehicles.

(5) So far as practicable, attach an emergency medical tag to all patients. The company aid men should fill out the heading of the tag and indicate any important treatment (such as morphine or tourniquet) with complete data as to time and dosage. The tag should be verified at the aid station and signed by the medical officer, and remain attached to the patient.

(6) Supervise sanitation within the company area and assist in the prevention of personnel losses due to disease and injury.

(7) Where possible, execute emergency medical tag for the dead, to insure accurate record of cause of death.

50. Evacuation Section

a. The evacuation section of the battle group medical platoon is made up of—

(1) The Medical Service Corps officer who is the assistant platoon leader also functions as the evacuation section leader.

(2) A section sergeant who supervises the activities of the section as directed by the section leader.

(3) Fourteen medical aid-evacuation teams each consisting of a senior medical aid man and an ambulance driver who operates the frontline ambulance provided each team.

b. Aid-evacuation teams perform the functions formerly performed by litter bearers and frontline ambulance drivers and some of the functions formerly performed by platoon aidmen. Each aid-evacuation team is mounted on a frontline ambulance in order to better support dispersed combat elements. These teams may operate both forward of the company aid post and between the company aid post and the battle group aid stations. They coordinate all their activities with the company aid man, evacuating to the company aid post those casualties who can be afforded necessary treatment there and transporting the others to the battle group aid station. Duties of the evacuation section personnel include—

(1) Maintaining contact with combat elements.

(2) Moving those wounded who are unable to walk to the company aid post or the battle group aid station.

(3) Directing or guiding walking wounded to the battle group aid station.

(4) Administering emergency medical treatment.
(5) Assisting in movement of the battle group aid station.
(6) Acting as messengers.
(7) Initiating emergency medical tags when necessary, time and the tactical situation permitting.

51. Training

The training program for the battle group medical platoon should be based on the appropriate Army training program.

52. Equipment

a. Individual. Certain members of the battle group medical platoon are provided with individual medical equipment. This includes a kit containing instruments, drugs, and dressings for the emergency medical care of patients.

b. Organizational. Organizational equipment is as provided in current TOE's. Each section is provided with the necessary equipment to accomplish its mission. Augmentation in equipment will be required to enable the company to operate over difficult terrain or in climatic extremes, and when excessive casualties are anticipated due to the type of operations planned.

53. Transportation and Maintenance

With the exception of vehicles utilized as ambulances, only the number of vehicles required for moving the equipment of the unit and for administrative purposes is provided. Organizational maintenance of the platoon's vehicles is performed by the supply and maintenance platoon of the headquarters company of the battle group.

54. Supply

The battle group medical platoon is concerned with two types of supply functions, general supply for the platoon and medical supply for the entire battle group.

a. General Supply. General supplies are provided the battle group medical platoon by the supply and maintenance platoon of the battle group headquarters company. All general supplies and administration pertinent thereto are the responsibility of the supply and maintenance platoon.

b. Medical Supply. Under conditions other than combat, medical supplies are obtained in the same manner and through the same channels as are other supplies. The battle group S4 may call on the battle group surgeon to assist him in editing the consolidated battle group requisition for medical supplies.

(1) In combat, medical supplies are obtained informally and in the most expeditious manner possible. Ordinarily, informal requisitions are submitted through the evacuation system. The battle group aid station will make use of division ambulances returning to the rear as a means of transmitting informal requisitions to the division clearing station. Division ambulances will deliver the supplies to the battle group aid station on their return trip. The battle group medical platoon must avoid accumulating large quantities of surplus supplies which will hamper its mobility.

(2) Medical property, such as litters, blankets, and splints, accompanying patients to the rear, must be replaced by automatic exchange of like property at the next rearward medical station. This exchange is necessary to keep the property of all units, especially the forward units, at required levels.

(3) Supplies other than medical are procured as provided for in all other elements of the battle group. Requisitions are generally informal.

55. Administration

The administrative functions of the battle group medical platoon include those involving the platoon and those of the battle group surgeon's office. The personnel of the platoon headquarters must accomplish both functions.

a. Battle Group Surgeon's Office. Administrative functions of this office include correspondence and medical records, reports, and returns for which the surgeon is responsible. Such records will include—

(1) Rosters of patients which are prepared at the battle group aid station for all wounded, sick, and injured treated, showing their disposition. These are used by the surgeon as a source of information for the preparation of patient reports.

(2) The Sanitary Report. This is submitted periodically to the battle group commander.

(3) Morbidity Report (DD Form 442). This is submitted to higher headquarters together with the original emergency medical tags (DA Form 8–26) for cases completed at the battle group aid station.

(4) Special reports of disease incidence and control as directed by higher headquarters.

b. Platoon Administrative Functions. These include primarily those functions relative to discipline, recommendations for personnel actions, and supply for the platoon.

56. Salvage

a. Ordnance. Ammunition and auxiliary individual weapons such as hand grenades and rifle grenades will be collected from patients at the battle group aid station, rendered safe, and disposed of as directed by the battle group S4. Unless contrary to division policy, patients who are to be evacuated farther to the rear ordinarily will be relieved of their individual weapons at the battle group aid station. The battle group headquarters company will collect the weapons from the aid station and dispose of them.

b. Other Equipment. Patients evacuated to the rear will retain such individual equipment as is prescribed by the division commander (usually mess equipment, helmet, protective mask, and a minimum of personal effects). All excess equipment will be collected at the battle group aid station and held until collected by the battle group headquarters company.

57. Mess

Mess facilities for members of the battle group medical platoon are provided by the company headquarters of the battle group headquarters company. In addition to providing food for the members of the medical platoon, the mess provides hot sustaining food on a 24-hour basis for the patients who pass through the battle group aid station.

58. Dental Service

Normally, any patient requiring emergency dental service, as defined in the division SOP, will be evacuated through normal medical channels to a clearing station of the division. Routine dental care and treatment will be provided by Army dental units.

59. Veterinary Service

Should the battle group require veterinary service, veterinary elements must be attached from the field army.

60. Reinforcement for Special Operations

The battle group and division surgeons will coordinate the attachment of various supporting Army Medical Service elements for a specialized or unusual operation.

Section III. DIVISION MEDICAL SERVICE

61. General

Division medical service is comprised of the division surgeon, his staff, and the infantry division medical battalion.

62. Division Surgeon

Usually, the senior officer of the Medical Corps assigned to an infantry division is the division surgeon. As division surgeon, he is a special staff officer of the division commander, and all his duties and responsibilities are staff functions. Although assigned to the infantry division medical battalion, he does not command this unit which has a designated commander (FM 101–5). The division surgeon is responsible for the technical supervision of medical service of the division at all echelons. The duties and responsibilities of the division surgeon are to—

a. Keep the division commander and general staff group constantly informed as to the conditions, capabilities, and, when needed, reinforcement requirements of the medical service, and assist the division commander in the exercise of such of his command functions as pertain to the medical service.

b. Keep the surgeon of the next higher command informed as to the medical situation within the division.

c. Elaborate the medical details necessary to carry the division commander's decisions into effect.

d. Initiate measures for the prevention or reduction of disability and death in the command. Such of these measures as involve command responsibility are initiated in recommendations to the division commander, but such as pertain only to technical procedures in the care and treatment of sick and injured may be initiated by direct instructions to the medical officers concerned.

e. Initiate measures for the prevention of disease among, and the medical care and treatment of, prisoners of war, and advise and assist the G5 and the civil affairs unit, as appropriate, in matters pertaining to prevention of Disease and medical care and treatment of the civil population of the area.

f. Advise the division commander upon the training of all medical personnel in the division; prepare programs, for his action, in regard to all aspects of medical training within the division.

g. Supervise all details concerning medical supply in accordance with the provisions of FM 101–5.

h. Prepare and forward consolidated reports and returns pertaining to the sick and injured; furnish this information to other staff officers of the division who are concerned therewith.

i. Make necessary technical inspections, for the division commander, to insure that his instructions pertaining to the medical service including the medical aspects of training are being carried out.

63. Division Surgeon's Office

The division surgeon's office consists of the commissioned and enlisted personnel provided to assist the senior medical officer of the division in his staff functions. It is not to be confused with the command post of the division medical battalion. Although the personnel of the division surgeon's office are assigned to the division medical battalion their normal functions are all performed in the division surgeon's office.

a. Personnel. The division surgeon is provided with administrative and technical assistants. Both the number and special qualifications of such assistants may be changed from time to time as the situation indicates (see current TOE's). The complement of such assistants normally provided is listed below, and, while each is provided for a certain technical specialty, all are available for any duties that the division surgeon may require of them.

(1) *Assistant to division surgeon.* This officer is a general administrative assistant. The division surgeon may employ him either as an executive assistant or in liaison with other sections of the division headquarters.

(2) *Preventive medicine officer.* The division preventive medicine officer provides the surgeon with professional advice pertaining to the prevalence of disease and injury in the division. He supervises the division preventive medicine program, including supervision and coordination of the activities of supporting personnel, such as preventive medicine detachments and other units when present. He inspects health and sanitary conditions where troops are operating and recommends timely and corrective action where needed. He assists in the development of programs in personal hygiene, sanitation, and health maintenance, and supervises the instruction of troops in these programs.

(3) *Aviation medical officer.* Although assigned to the battalion headquarters, the aviation medical officer provides professional advice to the division surgeon on aviation

medical matters. He, in addition, functions as the aeromedical evacuation regulating officer, coordinating requests for emergency, on-call helicopter ambulance service from the field army, and coordinating supplemental air evacuation missions as to pickup and destination points with the operations section, infantry division aviation company.

(4) *Division psychiatrist.* The division psychiatrist functions on the staff of the division surgeon. He has a dual function. As a staff officer, he assists the surgeon in advising command on matters of policy and procedure which affect the mental health and morale of troops, and concurrently exercises technical supervision over the neuropsychiatric section within the clearing company.

(5) *Enlisted personnel.* Noncommissioned officers are provided for technical and clerical assistance and operation of radio.

b. Location. The division surgeon's office is a part of, and located with, the division main command post. The office is the administrative agency of the division surgeon, to be operated by one of his assistants at such times as the duties of the division surgeon require him to be absent from his office.

64. Infantry Division Medical Battalion

The infantry division medical battalion, operating to the rear of the battle group medical platoons of the component battle groups of the division, provides division level medical service for the infantry division. It has as its primary mission—

a. Receiving, sorting, and providing temporary medical and surgical care for patients.

b. Evacuation of patients from the aid stations of the battle groups, providing assistance in the evacuation of the aid stations of the cavalry squadron, and the armor, engineer, and artillery battalions, and provision of ambulance support to units of the division not having organic ambulances.

c. Emergency dental service.

d. Medical supply and second-echelon medical equipment maintenance for the division.

65. Employment

The battle groups are supported by ambulance and clearing elements. The allocation of this support depends on the missions and

composition of supported combat units, the terrain, the tactical situation, and the expected casualty rate. Ambulance and clearing elements will be located as centrally as possible in relation to the combat and combat support elements to be served.

66. Organization

The medical battalion is organized into a headquarters and headquarters detachment, an ambulance company, and a clearing company (fig. 6). This organization is dictated in order to meet the four primary functions of the division medical service: evacuation, operation of clearing stations, emergency dental service for the division, and medical supply for the division.

67. Command

The battalion commander, an officer of the Medical Corps, is responsible to the division commander for—

a. The administration, discipline, and training of his battalion.

b. The development of plans for its employment.

c. Preparation of required reports.

d. Evacuation of patients from aid stations of the battle groups to the division clearing stations.

e. Providing assistance in the evacuation of the aid stations of the cavalry squadron, and the armor, engineer, and artillery battalions, and provision of ambulance support to units of the division not having organic ambulances.

f. Providing emergency dental service for the division.

g. The establishment of clearing stations and the reception of patients brought to them.

h. Proper sorting of patients; preparation of patients for evacuation from the division area; and the rapid return of slightly injured to duty.

i. Furnishing necessary shelter to patients until such time as their physical condition permits further evacuation.

j. The operation of a dispensary or dispensaries for the treatment of personnel when the division is not engaged in battle.

k. Insuring adequate supply of all elements of the medical battalion, and supplying medical supply items to all units of the infantry division.

l. The establishment and operation of a central psychiatric treatment facility for the division.

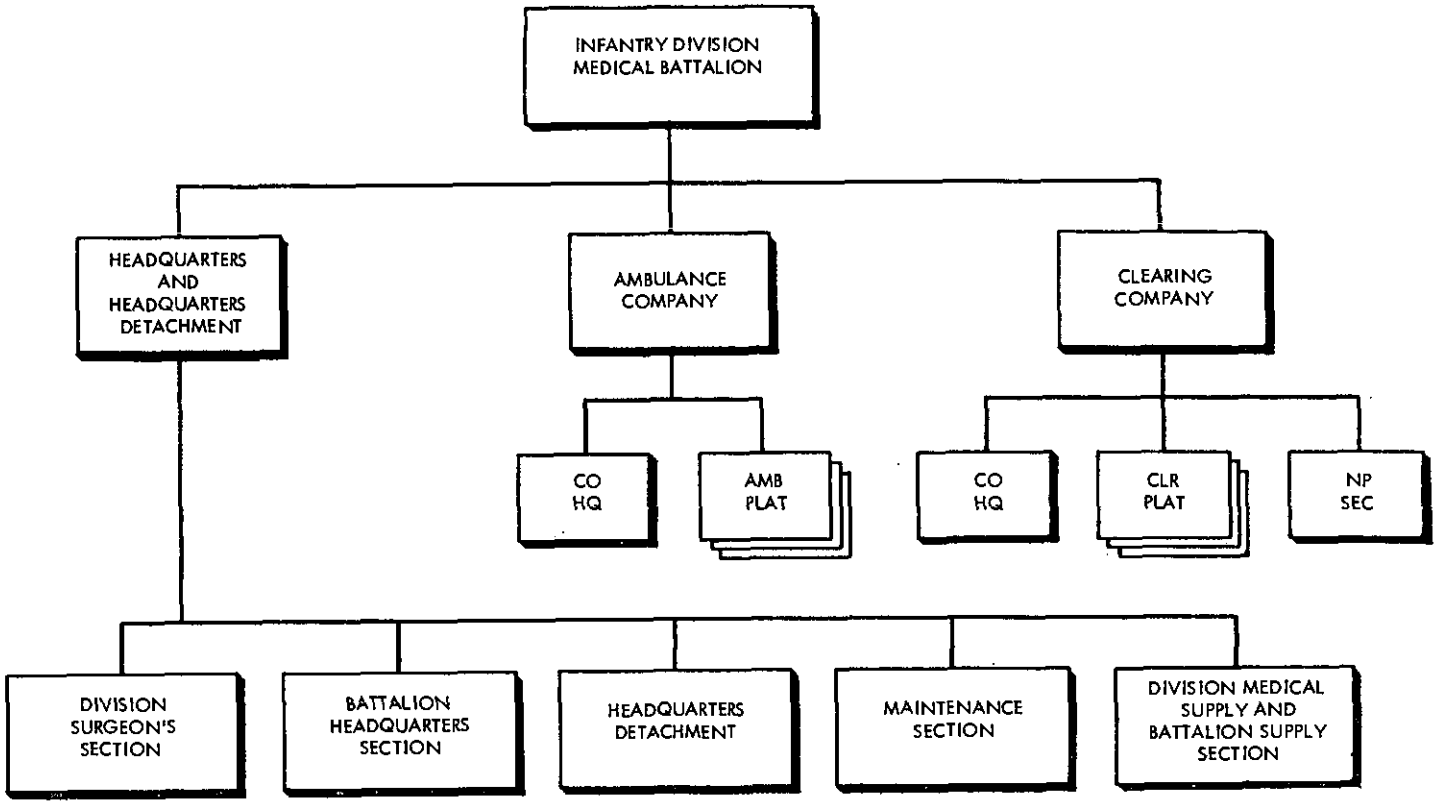


Figure 6. Organization chart of infantry division medical battalion.

68. Staff

The battalion staff consists of the executive officer, an adjutant (S1), an operations-intelligence officer (S3–2), and a combined battalion supply officer (S4) and division medical supply officer. In addition, there is assigned to the battalion staff, but for function with the division surgeon's office, an aviation medical officer. (Duties and functions are discussed in par. 63*a*(3).)

69. Division Medical Supply

As pointed out in paragraph 62, the division surgeon is responsible under the division commander for all details concerning medical supply in accordance with the provisions of FM 101–5. For the execution of his responsibilities he has, on the staff of the medical battalion commander, a division medical supply officer who is in direct charge of medical supply for the division. This officer serves in two distinct capacities. He is the battalion supply officer of the medical battalion and the medical supply officer of the division.

a. As the battalion supply officer, he serves on the staff of the medical battalion commander as S4 and is responsible for the procurement, storage, and issue of all types of supply for the medical battalion.

b. As the medical supply officer of the division, he is responsible to the division surgeon for the procurement, storage, and issue of all medical supplies for the division under existing standing operating procedures and prescribed policies. In this manner he relieves the division surgeon of the details incident to the medical supply function.

c. To discharge the combined supply responsibilities, he is provided with a division medical supply and battalion supply section in the headquarters and headquarters detachment of the division medical battalion. This group performs all functions associated with the procurement, storage, and issue of medical supplies for the division, as well as the general supply for the division medical battalion.

d. The division medical supply officer is responsible for the stock of medical supplies in his division medical supply point, when established. He is not accountable for all medical supplies in the division. Upon receipt of equipment and/or nonrecurring items of expendable supplies from a medical supply installation or nearest medical supply point, he ships them to unit supply officers and drops them from his informal accountability. On the other hand,

unit supply officers are responsible for all property issued to their respective units. It is this difference in property accounting that makes necessary the separation of unit supply from division medical supply within the headquarters and headquarters detachment of infantry division medical battalions.

e. The impetus of providing medical supplies is from the rear to the forward areas. Normally, the division procures medical supplies from the field army depot. Procurement of medical supplies for the division is effected by the division medical supply officer who requisitions the supplies from the field army depot. The medical supplies are delivered to the division medical supply point by field army transportation means or the transportation intersectional service.

f. The division medical battalion does not operate a medical depot. The division medical supply and battalion supply section, however, does carry in vehicles, a small reserve of medical supplies against emergencies and to minimize the time lag between requirement and distribution.

g. The method of distribution of medical supplies in combat is informal. The primary objective of division medical supply is to keep the division and its medical units adequately supplied at all times. The division medical supply point is normally established at a site which is convenient and accessible to ambulances providing support to the majority of forward medical facilities. Requests are sent to the rear by vehicles, e.g., trucks, ambulances, and aircraft, or via the communications net, e.g., telephone, radio, etc.; supplies are dispatched forward by trucks, ambulances, and aircraft.

h. In noncombat situations requisitions by subordinate elements of the division are submitted by each unit supply officer for the medical supplies required by his unit. This includes the unit supply officer of the division medical battalion, who, in one capacity, submits a requisition that he himself, in another capacity, will eventually fill. This is a paper transaction between the two supply echelons of the headquarters and headquarters detachment. The approval of requisitions is a command function. The division surgeon reviews requisitions for regulated items of medical supplies, coordinates same with G4, and makes appropriate recommendations to the division commander. The latter may delegate his authority to the division surgeon to act upon such requisitions under such policies as may be established.

i. Incoming medical supplies may be delivered to divisional unit

trains at the railhead or at the division medical supply point, and from the latter they may be delivered to unit distributing points by vehicles of the medical battalion.

Section IV. AMBULANCE EVACUATION

70. General

The ambulance company of the infantry division medical battalion furnishes ambulance service within the area of division responsibility. This company consists of a company headquarters and three ambulance platoons.

a. The primary mission of the ambulance company, infantry division medical battalion, is—

(1) To evacuate patients from the aid stations of the battle groups.

(2) To assist in the evacuation of the aid stations of the cavalry squadron, and the armor, engineer, and artillery battalions.

(3) To provide ambulance support to units of the division not having organic ambulances.

(4) To transport medical personnel and medical materiel as required.

b. Ambulance companies are normally employed in the following manner:

(1) Ambulance platoons will be assigned to evacuate combat and combat support units to a/the clearing station(s) or, in an emergency, to the field army hospital supporting the division.

(2) Normally, two ambulance platoons will be employed in support of the two forward clearing stations. The third ambulance platoon will be used to reinforce forward ambulance elements; to assist the combat support battalions by evacuating their patients to the third clearing station operating in the division trains area; or to support a separate task force.

c. Secondary missions that may be assigned to an ambulance company of the division medical battalion are the transmission of messages from one medical unit to another along the assigned routes of evacuation.

d. The ambulance unit commander must be informed as to the exact route or list of available routes and all traffic instructions that may affect his operations.

71. Reconnaissance

Whenever practicable, ambulance unit commanders should investigate all routes available or likely to become available within their zones of operation. Such reconnaissance is not only for the purpose of selecting or familiarizing themselves with initial routes, but also for securing information of alternate routes in the event that changes in situation may indicate, or require, the abandonment of the initial route.

72. Ambulance Plan

The ambulance plan prepared by the ambulance company commander for each platoon will include—

a. The initial ambulance routes and possible alternate routes.

b. The locations of the company command post and the ambulance relay, control, and loading posts to be used in a shuttle system. When this system is not to be employed, the plan should state ambulance locations and the methods by which they will be utilized in the local medical evacuation system.

c. The allotment of ambulances to the various clearing station areas.

d. Provisions for supply and maintenance of transport.

e. Provisions for relief and messing of personnel.

73. Ambulance Routes

The following considerations govern the selection of ambulance routes:

a. Availability of routes.

b. Physical characteristics, such as the surface, width, and grades of roads, and the passability of cross-country routes.

c. Traffic density on available routes or portions thereof.

d. Relative length, compared with other possible routes.

e. Proximity of routes to terrain features or installations that may draw enemy fire, or intersections likely to be interdicted.

f. General protection from enemy observation and fire.

g. Cover or concealment of movement, and for parked ambulances.

74. Control

a. General. In combat, the ambulance company commander designates the location of the company/platoon command posts. A basic relay post is located at each of the command posts. The com-

pany/platoon command posts should be centrally located within the area of the clearing stations being supported and as far forward within that zone as is possible. Contact is maintained between the ambulance company headquarters and each ambulance platoon by means of organic radio.

b. Ambulance Platoons. Ambulance platoons have no integral housekeeping or motor maintenance facilities. The platoon command post is established at the point where ambulances may be best controlled—ordinarily at the basic relay post. Here, the platoon commander maintains a log which provides a current record of the distribution of the ambulances of the unit, and a check on the number of patients evacuated to the clearing station. The following data are entered in the log:

(1) Serial number of the ambulance.
(2) Name of the driver.
(3) Hour of arrival or departure of the ambulance.
(4) If the ambulance is carrying patients, the number each of litter and sitting patients.

75. Ambulance Shuttle

An ambulance shuttle is a method of operating ambulance service in combat. It may consist of one or more ambulance loading posts, one or more ambulance relay posts, such ambulance control posts as may be required, and a basic relay post (fig. 7). Its purposes are to echelon ambulances in depth along routes of evacuation and to prevent congestion of ambulances at any one place.

a. An ambulance loading post is a point in the shuttle, normally the point farthest forward and usually in the area of the battle group aid station, where one or more ambulances are stationed, ready to receive patients for transportation. Ambulance loading posts are established by ambulance units, but the loading of patients is done by personnel of the battle group aid station.

b. An ambulance relay post is a point in the shuttle where one or more empty ambulances are stationed ready to advance to the next forward post, whether it be another relay post or a loading post. Relay posts are numbered from front to rear.

c. The basic relay post is that relay post farthest to the rear where the bulk of the unemployed ambulances, or such as remain after all other relay posts have been provided for, are stationed.

d. An ambulance control point is a point at a cross road or a road junction where an ambulance route divides into two or more routes to different loading posts. When established, it requires the

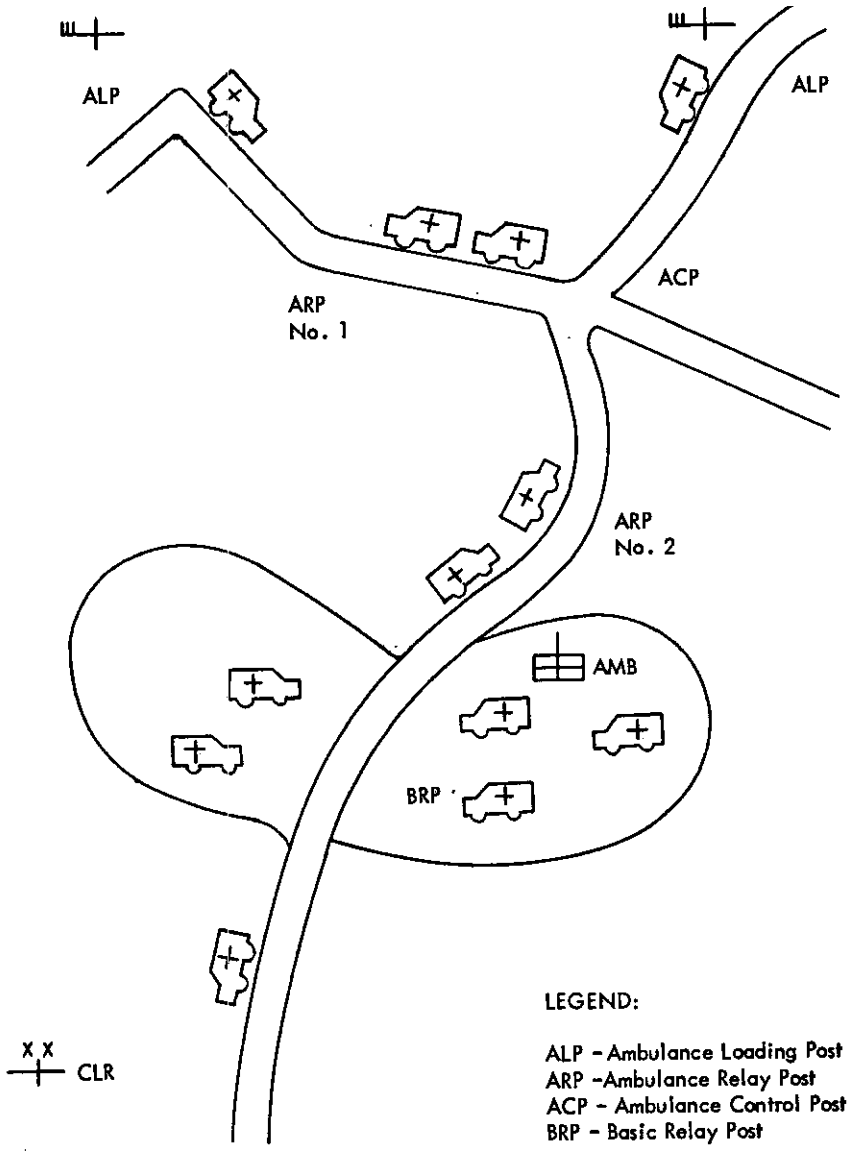


Figure 7. Ambulance shuttle (schematic).

presence of an individual at that point, who, knowing from which route each loaded ambulance has come, directs its replacement forward to that route. This maintains the proper number of ambulances in each spur of the shuttle.

76. Establishing Ambulance Shuttle

Establishment of an ambulance shuttle is effected in two stages. The responsible officer makes a ground reconnaissance of the avail-

able routes forward to the battle group aid station. As a result of this reconnaissance he determines where and how many relay posts are to be established along the route from the battle group aid station to the clearing station. The required number of ambulances are selected and proceed forward. As each point selected for a relay post is reached the designated ambulance for that point drops out and assumes its position there. This procedure continues till the site of the battle group aid station is reached and the designated ambulance(s) for the loading post at that point take their position.

a. Location of Relay Post. The following features are desirable in the location of a relay post:

(1) Hardstanding which does not interfere with the passage of ambulances en route.

(2) Cover or concealment of ambulances at the post from ground and aerial observation.

(3) Unobstructed view of the ambulance route, clearly visible to ambulances en route.

(4) Protection from direct fire.

(5) Ample distance from terrain features or other installations that may invite hostile fire or air action.

b. Distances Between Relay Posts. The number of relay posts and the distances between them will vary with the situation. The primary purpose of the shuttle being to keep an empty ambulance at each loading post at all times, the first relay post should be near enough to the loading post to permit a loaded ambulance to be replaced without delay. Distances between succeeding relay posts will depend upon suitable locations, the total length of the shuttle, the rate at which ambulances are loaded, and the number of ambulances that it is desirable to keep forward of the basic relay post.

c. Number of Ambulances at Each Relay Post. The minimum number of ambulances allocated to a relay post is one; the maximum depends upon the situation. The post should be plainly marked. Whenever more than one ambulance is stationed at a relay post, including the basic relay post, they must be adequately dispersed.

77. Operation of Shuttle

a. General. An ambulance is loaded at a loading post and starts to the rear. As it passes the first relay post, the forward ambulance in that post moves at once to the loading post; the second

ambulance in the first relay post moves to replace the first in the forward position of the post. This shift continues until all ambulances in the post have moved forward one position. As the loaded ambulance on its way to the rear passes the second relay post, the forward ambulance in that post moves forward and occupies the rear position in the first relay post; and the other ambulances in the second relay post shift their positions one place forward as described above. This same operation is repeated as the loaded ambulance passes each relay post, including the basic relay post, on its journey to the rear. When the loaded ambulance has discharged its patients, usually at the clearing station, it returns to the basic relay post and takes station.

b. Forwarding Messages and Supplies. Messages and supplies are removed from ambulances reporting to the basic relay post and placed on the first ambulance proceeding toward the forward areas. As the latter ambulance reaches the next relay post, such messages and supplies are transferred to the ambulance occupying the forward position in the post, and are similarly transferred to the leading ambulance in each relay post. The soldier in charge of an ambulance control point examines all messages and determines the destination of all supplies passing his post en route to the forward areas. If necessary, he retains them in his possession until an ambulance passes his post destined for the proper loading post. Ambulances are not diverted from their proper routes to make such deliveries. Urgent messages and supplies are not forwarded through the shuttle.

78. Responsibilities of Ambulance Unit Commander

a. An ambulance unit commander is responsible for all phases of the activities of his unit. The more important of these responsibilities are—

(1) Establishment, supervision, control, and termination of the ambulance service furnished by his unit.

(2) Emergency medical treatment of patients committed to the care of his unit.

(3) Provision of shelter and opportunities for resting to the personnel of his unit.

(4) Coordination and arrangement for mess facilities for personnel of his unit.

(5) Maintenance of the transport of his unit, including its protection from enemy action.

(6) Supervision of the operations of his unit as an agency of communications and delivery of supplies.

(7) Transmission of timely information to his immediate superior concerning the situation within his unit.

b. Proper performance of his many duties will require the unit commander to be absent from his command post much of the time, however, the personnel at his command post should know his whereabouts at all times.

79. Allotment of Tasks

Whenever the general mission of the company comprises two or more component tasks, or whenever only a portion of the company is required for a task, tasks should be allotted to prescribed subordinate elements of the company, such as platoons or sections, rather than to detachments improvised from ambulances from two or more elements.

80. Plans

The ambulance unit commander must have a working knowledge of all available routes in his zone of action and plans for their adaptation to his requirements. His plans must include provision for the movement, in either direction, of the termini of his ambulance routes. In addition, he must have at least one alternate plan that can be placed in operation without delay in the event certain routes are denied him for ambulance use.

81. Liaison

The ambulance platoon leader is probably the most important link in the evacuation system, since he is responsible for maintaining contact with the battle group surgeon(s) in his area of responsibility. He must provide prompt and continuous evacuation of patients from all battle group aid stations, in his area of responsibility, to the clearing station providing support to that area.

82. Emergency Medical Treatment of Patients En Route

All ambulance drivers and orderlies must be trained to render emergency medical treatment as may be required to patients en route.

83. Protection of Ambulances and Patients

When necessary to the accomplishment of the mission, ambulances may be exposed to danger. However, all practicable measures must be pursued at all times to minimize the danger of destruction of ambulances and the further injury of patients. The more important of these measures are—

a. Concealment. Movements may be made at night without lights when daytime movement is impracticable. It must be kept in mind that dispositions of the medical service of the division, in many cases, are a clue to the tactical disposition of the division, and security measures must be carried out to prevent this knowledge from divulging tactical intentions to the enemy.

b. Defilade. Full use should be made, in a static situation and in movement, of any protection offered by the terrain.

c. Dispersion. Maximum dispersion of vehicles and personnel commensurate with security and control must be exercised at all times.

84. Directing Signs

Directing signs, when permitted by division policy, are marked as directed and posted at all points along an ambulance route where drivers may become confused. Other suitable signs are also used to mark the ambulance company/platoon command posts, message center, motor park, relay post, control points, and loading posts.

Section V. CLEARING

85. General

Clearing, one of the functions of division medical service support, is the process of sorting and disposing of the patients of a division or comparable unit. Clearing consists of sorting all patients, returning to duty those that are immediately fit for duty, treatment of the short-time cases, and transferring all others, except the dead, to a medical unit of a higher command. The clearing function is performed by the clearing company of the infantry division medical battalion.

86. Organization of Clearing Company

The clearing company of the infantry division medical battalion is organized into a company headquarters, three clearing platoons, and a neuropsychiatric section.

a. Company headquarters comprises such commissioned and enlisted personnel as are required for the command administration of the unit.

b. The clearing platoons comprise the personnel who perform the professional care and treatment of patients.

c. The neuropsychiatric section comprises personnel especially trained in the care and treatment of mentally ill patients.

87. Mission and Employment of Clearing Company

a. General. The mission of the clearing company is to receive, sort, and provide temporary medical and surgical care for patients, return to duty those that are immediately fit for duty and prepare others for evacuation to the rear, and to provide emergency dental care for the division.

b. Employment. The clearing company of the infantry division medical battalion is normally employed in the following manner:

(1) The battle groups are supported by the clearing platoons. Each clearing platoon is capable of establishing a clearing station which can be divided into two treatment sections capable of independent operations for limited periods. The two forward clearing stations will operate, in general, in the combat support area. Full support of the battle groups is maintained by advancing the clearing stations (by leapfrogging the sections) or by echeloning them laterally or in depth.

(2) The third clearing platoon normally provides area medical support for the division trains area. This clearing platoon may be used in any of the following ways, provided area medical support for the division trains is assumed by the field army medical service:

(*a*) To reinforce, replace, or leapfrog a clearing station in area support.

(*b*) To provide emergency aid stations for rear area damage control.

(*c*) To support a separate task force.

(3) A central psychiatric treatment facility for the division is established by the neuropsychiatric section of the company. This facility is normally established in the division trains area.

(4) Each clearing platoon dental officer furnishes emergency dental care only. Nonemergency dental procedures are performed by the dental teams of the field army medical service during periods when the division is in reserve or otherwise out of action.

c. Noncombat Situations. A clearing company may be utilized to provide limited care and treatment of such sick and injured of the division as will be fit for duty within a short time.

88. Clearing Company Commander

The senior officer of the Medical Corps present for duty when the

clearing company commands it. His duties and responsibilities include the administration, discipline, morale, and training of the company.

a. The duties and responsibilities of the company commander are restricted largely to the establishment and operation of the clearing stations and a central psychiatric facility for the division; and to keeping higher authority informed of the situations at this facility and each of the clearing stations.

b. In accordance with arrangements for the evacuation of patients by higher headquarters, the clearing company commander should keep the unit charged with the evacuation of these stations fully informed. The information provided should pertain to the numbers and classes of transportables awaiting evacuation, and of any anticipated changes in the situation. Cooperation in this respect will facilitate the movement of patients.

89. Relations With Other Units

The only direct contacts of a clearing unit with other medical units are normally those with division ambulance units to the front, and with ambulance units of higher commands to the rear. In each case the responsibility for maintaining contact rests with the ambulance units whose dispositions and movements must conform to those of the clearing stations.

90. Establishment

Clearing stations must be established and ready to receive patients as soon as battle group aid stations are ready to have patients evacuated.

91. Selection of Sites

The number of clearing stations to be established, and their general locations, are elements of the division medical plan. Unless prescribed in detail in the division medical battalion order, the selection of the exact sites is a responsibility of the clearing company commander.

a. Essential features of a clearing station site are—

(1) The site must be located on, or readily accessible to, routes of evacuation, both from battle group aid stations and to the supporting medical service of the field army.

(2) There must be space enough for a complete clearing station. A complete station is one of sufficient capacity, either organic or throngh reinforcement, to clear all patients that may pass through it. In the selection of a site,

the possibility of expanding the initial station must always be considered.

(3) Water points must be available. If a practicable means of transporting water is available, the source of water need not be at the immediate location of the station.

b. Desirable features of a clearing station site are—

(1) Location beyond the effective range of hostile light artillery.

(2) Protection from medium and heavy artillery (rarely completely attainable).

(3) Central location with reference to evacuation routes from supported units.

(4) Accessibility from forward and rear areas for evacuation means used.

(5) Ample hardstanding for ambulances and for the unit transport.

(6) A road loop to facilitate ambulance turnaround.

(7) Good drainage.

(8) Availability of buildings to substitute for or supplement tentage.

(9) Sufficient area to provide dispersion of personnel and facilities.

(10) If possible, location near an open area to serve as a heliport or landing strip is highly desirable.

c. Features which are undesirable in the location of a clearing station are—

(1) Areas that favor the persistence of chemical agents. In general, these are low places and heavily wooded areas. This feature must be carefully weighed against the advantages of concealment and protection from artillery fire.

(2) Proximity to targets or installations that may invite hostile fire or air action.

d. The normal location of a clearing station should be in accord with the methods of employment outlined in paragraph 87.

92. Protection

While all medical installations are protected by the Geneva Convention, modern warfare has introduced problems not foreseen when that agreement was reached. In the first place, the location of a clearing station is an index to the tactical dispositions of the division, and, for this reason, the division commander will, in many

situations, desire that its location be concealed. Since to be protected by the Geneva Convention it must be plainly marked, there can be no compromise between the two considerations. This will be a command decision of the division commander or higher authority. Aerial bombing is not always sufficiently accurate to insure immunity to a medical installation when there are legitimate targets in the vicinity; and it rarely will be possible to locate a clearing station at sufficient distances from such targets to avoid this danger.

93. Directing Signs

Directing signs should be posted at critical points on the ambulance routes.

94. Operations

Normally, the bulk of patients are received from the aid stations of combat and combat support units.

a. The flow of patients is not constant. They tend to arrive intermittently in groups, straining the facilities of the station to provide prompt attention to each. This requires careful sorting in the receiving section, so that priority of treatment and evacuation may be allocated appropriately.

b. In the event that evacuation from the clearing station becomes intermittent, patients must be cared for until evacuation means arrive from the field army medical service supporting the division.

c. A proportion of admissions will be nontransportables. A nontransportable is a wounded or injured individual who cannot be subjected to extensive evacuation without real danger to life or limb. Such cases must be transferred at once to the field army hospital with a surgical capability in immediate support of the clearing station. However, if such service is not immediately available, they must be cared for in the clearing station until their condition has improved to the degree that their movement to the rear can be effected safely.

95. Medical Records

a. Each patient should arrive at the clearing station with an emergency medical tag (EMT) attached to him. If not, one is made out in the receiving section and attached to him. Concise records of all treatment given in the clearing station are entered thereon. The EMT's are taken from those individuals returned to duty and disposed of as prescribed in current directives.

b. Patients who are to be transferred to field army medical installations farther to the rear must have their EMT's, which accompany them, completed and up-to-date prior to departure from the clearing station.

c. Reports of patients are made and forwarded through the clearing company and medical battalion headquarters to the division surgeon at prescribed times. Such reports, normally, consist of lists of all admissions by name, with the serial number, rank, organization, cause of admission, and disposition of each patient set opposite his name.

96. Disposition of Patients

All surviving patients admitted to the clearing stations are disposed of either by further evacuation to field army medical installations or by return to duty.

a. The loading of the transport for such patients and the type of transport for each patient are controlled by the platoon leader of the clearing station.

b. Each division under the present organization has a replacement section in the administration company which provides replacements to units of the division. This unit may be used for the return of personnel from a clearing station to the subordinate elements of the division. In addition, personnel returning from a clearing station to their organizations may be permitted to return individually, either afoot or on transport.

c. A record of the disposition of all patients, whether by death, evacuation, or return to duty, is maintained in the evacuation section of each clearing platoon. This record is submitted at required intervals to the platoon headquarters.

d. All deaths in a clearing station are reported to the evacuation section. This section closes the records of such cases and sends them to the clearing platoon headquarters.

97. Prisoners of War

Prisoner of war patients are given the same treatment and are evacuated the same as all other patients. Prisoners of war who are fit for duty are transferred to a PW inclosure. Retention for duty in the treatment facility must be authorized by higher authority. The necessity for providing guards for prisoners of war and procurement of the guards must be decided by higher authority.

98. Evacuation of Patients From Clearing Stations

Evacuation of patients from the clearing stations is a function of the medical service of the field army. The division surgeon

submits to the division G4 his recommendations concerning the arrangements to be made for evacuating patients from the division clearing station(s), and the latter makes the arrangements for evacuation with the higher command. In practice it is customary to permit the division surgeon to arrange the details directly with the surgeon responsible for this evacuation. Evacuation arrangements must include emergency and routine provisions for an adequate number of ground and air ambulances and other transport to maintain a constant and timely flow of patients from the clearing station.

99. Hospital Support

Clearing stations may receive direct close-in support from mobile army surgical hospitals.

Section VI. UNIT MEDICAL SECTIONS

100. General

a. Unit medical sections, like the medical platoons of the battle groups, are essential to adequate field medical service. They provide the initial medical care and treatment without which the value of the more elaborate arrangements in the rear would be considerably lessened.

b. Unit medical sections are organic to the infantry division headquarters, infantry division artillery headquarters, artillery battalions, the armor battalion, the cavalry squadron, and the engineer battalion. Each unit medical section, except the medical section of division headquarters company, includes a surgeon, who is assigned to the staff of the unit commander, and those personnel required to render adequate unit medical service to all members of the command. Evacuation means within each medical section's area of responsibility include organic ambulance transport, but not litter bearers. Normally, although the battalion/squadron medical section is included in the TOE of the headquarters company of the unit, it establishes the battalion/squadron aid station in the vicinity of battalion/squadron headquarters.

c. Each battalion/squadron medical section assists in technical instruction in first aid, field sanitation, and related subjects; carries out technical inspections of a medical and sanitation nature; and may be augmented, when necessary, by personnel, vehicles, and equipment of the division medical battalion.

d. The division surgeon does not command these unit medical sections, but he does exercise technical supervision over their opera-

tions and training. The unit commander alone has authority over, and is responsible for, the tactical employment and administrative efficiency of his medical service.

e. The battalion/squadron medical sections and the medical sections of division headquarters and of division artillery headquarters will normally operate dispensaries for the routine treatment of slightly sick and injured who are not incapacitated for duty.

f. The pattern of supply for medical sections of division headquarters, division artillery headquarters, the cavalry squadron, and separate battalions follows closely that for the battle group medical platoons of the battle group.

101. Infantry Division Headquarters Medical Section

The medical section of the infantry division headquarters company furnishes medical care and evacuation of patients for the division command posts and the brigade command post. It provides limited medical support for the rear echelon.

102. Medical Service of Signal Battalion and Elements of Division Trains

The medical service for the signal battalion and elements of the division trains is provided by the medical installations nearest to the point where these units are operating.

103. Infantry Division Artillery

The infantry division artillery is organized into a division artillery headquarters and headquarters battery, and such field artillery battalions as are organic to the division. These artillery battalions are normally under the control of the division artillery commander for fire control and tactical operations. (For further details of artillery operations, see FM's 6–20 and 100–5.)

104. Infantry Division Artillery Medical Sections

a. Headquarters, Division Artillery Medical Section. This medical section operates an aid station in the vicinity of division artillery headquarters. Its patients are normally evacuated by organic transportation directly to a clearing station. However, patients may be evacuated, on call, by ambulances of the division medical battalion when the evacuation capabilities of the medical section have been exceeded.

b. Battalion Medical Sections. These medical sections are organized functionally into a battery aid group, which provides battery aid men for the subordinate batteries of the artillery battalion,

and an aid station group. Patients are transported from the battery positions to the aid station by the ambulance organic to the medical section. Supplemental ambulance evacuation is provided by the division medical battalion on-call.

c. Aid Station Sites. The general requirements of a site for an artillery aid station are the same as those of the infantry.

d. Evacuation of Aid Station. Patients of a field artillery aid station are normally evacuated by organic transportation directly to a clearing station. However, field artillery aid stations may be evacuated, on call, by ambulances of the division medical battalion when the evacuation capabilities of the medical section have been exceeded.

105. Infantry Division Engineer Battalion

The engineer battalion's primary function is to increase the mobility and combat effectiveness of the division by means of general engineer work. The battalion must be prepared to fight as infantry when required. (For further details of engineer operations, see FM 5–132.)

106. Infantry Division Engineer Battalion Medical Section

a. The medical section of the engineer battalion is designed to serve the unit in its primary mission. The section is organized functionally into a company aid group and an aid station group. Normally, two company aid men are furnished to each combat engineer company.

b. The employment of the medical section is dictated by the type of mission which is performed by the battalion.

(1) In an engineering mission, the battalion is frequently dispersed, the individual platoons functioning separately. Each dispersed platoon is supported by a company aid man. Evacuation and aid station support of a dispersed platoon is furnished by the medical element of the unit (e.g., battle group) in whose area the platoon is operating. The single ambulance authorized the engineer battalion medical section is capable of evacuating those subordinate elements operating relatively close to the battalion aid station. Augmentation ambulance support is furnished by the ambulance company of the division medical battalion.

(2) When the battalion performs an infantry combat mission, the pattern of medical service is that of the battle group. The small size of the medical section, however, makes it

necessary that it be reinforced with litter bearers and ambulances when it engages in combat.

107. Infantry Division Armor Battalion

The role of the armor battalion in the infantry division is to support the overall division mission. It is used in the greatest possible concentration consistent with the situation. The infantry division armor battalion may be reinforced by, or may be used to reinforce, battle groups; and it increases the strength and firepower of the attack and counterattack, exploits successes, and adds depth to the antitank defense.

108. Infantry Division Cavalry Squadron

The infantry division cavalry squadron is a tactical and administrative unit organized and equipped to provide security, perform reconnaissance, and execute combat missions as an economy force. The elements of combined arms are integrated at platoon level.

109. Infantry Division Armor Battalion and Cavalry Squadron Medical Sections

Each of these medical sections is an integral part of the headquarters company/troop, and provides unit medical service and medical support for the battalion/squadron. Each battalion/squadron medical section establishes and operates a battalion/squadron aid station and provides teams to the companies for emergency medical treatment and evacuation of patients to the aid station. (For details regarding the operation of these medical sections, see FM 17–50.)

CHAPTER 5

MEDICAL SERVICE IN CAMP AND BIVOUAC

110. Definitions

A camp is a temporary or semipermanent installation for troops. A bivouac is a preselected piece of terrain generally in rear areas out of direct contact with the enemy where a command rests and prepares for further movement.

111. Medical Service in Camp

One of the first requirements in the establishment of a camp is the provision of adequate medical facilities and personnel for the care and treatment of the sick and injured. The principal responsibilities of medical service in a camp are the care of the sick and injured, training of medical service personnel, and the supervision of training of all personnel in hygiene, first aid, and military sanitation.

a. Medical Facilities. Every unit of any size normally arrives in camp with personnel requiring medical treatment which must be undertaken immediately, regardless of available facilities. Tentage may be used, although it is never the shelter of choice for the sick and injured. Detailed care and treatment of patients require the more important utilities found only in permanent plants, either in existing buildings or temporary buildings erected for hospital use. Public buildings, such as schools and courthouses, are well adapted to hospital use; ample corridors lead to all parts of the building, stairways are wide, rooms are large, and sanitary facilities are designed to provide for the needs of groups rather than of individuals. Apartment houses may be satisfactory, provided stairways are suitable or the elevators will accommodate wheeled or other types of litters. Few private dwellings are well adapted to hospital use because of poor internal arrangements. Civil hospitals are the most ideal of all existing structures but should be chosen only in emergencies because of the requirements of the civil population and because of insufficient capacity for any considerable number of troops. In the absence of suitable existing structures, new construction should be undertaken; but, whether the plant is of new construction, in a building adapted to the pur-

pose or under canvas, it must be completed, equipped, manned, and ready to receive patients on time.

b. Training. All other essential functions must be so organized as to interfere as little as possible with training. The medical service must be organized to provide prompt and adequate care and treatment of the sick and injured and, at the same time, afford the opportunity for proper training of medical personnel and supervision of training of all personnel in hygiene, first aid, and military sanitation. Since patients in camps are usually limited to diseases and nonbattle injuries (except in the case of air or guided missile attack), medical units of a division, at authorized strengths, can be properly trained and still discharge their service functions.

c. Deployment of Medical Units. The deployment of troops in a camp is governed by convenience in command and administration, facilities for training, and the adaptability of the terrain to sanitary requirements. Normally, the location of a battle group medical platoon is in close proximity to its parent unit, the headquarters company. Control of all elements of a battle group medical platoon should be retained by the battle group surgeon in the interest of training. Centralization of a battle group medical service in one dispensary will increase the time available for training all personnel of a battle group medical platoon.

d. Unit Medical Service. The functions of unit medical service in camp are the operation of dispensaries for the primary treatment of the sick and injured, instruction of all personnel of the unit in hygiene and first aid, supervision of sanitation, and the training of unit medical personnel.

e. Ambulance Evacuation. Division ambulance platoons evacuate the dispensaries of the various units of the division. To insure coordination, this task should be assigned to a particular ambulance platoon; and, to facilitate training, the duty should be rotated among the ambulance platoons of the company. Ambulances should evacuate dispensaries promptly after each sick call and should be made available on call at other times.

f. Clearing. Clearing is primarily a combat function and normally is not necessary to the medical service of a camp. The clearing company ordinarily operates the dispensary of the division medical battalion. Experience has shown that clearing companies cannot be given proper field training if they are required to operate a fixed medical facility. Their duties in the field require rapidity in loading, transporting, unloading, and putting into use their combat equipment. Certain technical specialists may be given individual training in the fixed hospital of the camp.

g. Hospitalization. A hospital should be established in or very near each camp. Patients may be admitted by informal transfer from their unit dispensaries so that they can be returned to their organizations when ready for duty. Those requiring treatment in a general hospital are ordinarily transferred formally and will require replacement.

112. Sick Call

Sick call is a daily assembly when all sick and injured, other than those in the hospital, report to a medical officer for examination. The purpose of sick call is to sort the disabled from those who are fit for duty, admit the disabled to hospital or quarters, and return the fit to duty after giving the necessary advice and treatment. (For detailed instruction on the conduct of sick call, see AR 40–101.)

113. Medical Service in Bivouac

In selecting the site for a bivouac area, both the local commander and the area commander consider the nature of the installations, terrain, and enemy capabilities. Desirable features for the area are natural barriers, defilade, cover, concealment from the enemy, and proximity to friendly troops. The need for dispersion must be considered in the selection of a site. Troop units, installations, and facilities within the installations must be widely dispersed in order to minimize the effect of possible enemy use of nuclear weapons. The dispositions of troops in bivouac are governed by considerations of space availability, security, secrecy, and future tactical employment. Security forces (outposts) operate at some distances from the bivouac area proper.

a. Unit Medical Service. A battle group medical platoon establishes and operates a dispensary for a battle group. Dispensary facilities are provided battalion size units by their respective organic medical sections (ch. 4).

b. Division Medical Service. Division ambulances evacuate dispensaries. This mission is ordinarily assigned to one ambulance platoon of the ambulance company and may be rotated among the platoons. Depending upon the situation, dispensaries may be evacuated at prearranged hours, on call, or by both methods. A clearing station is established, although only as much of its equipment is set up as the immediate situation requires.

114. References

For general principles governing camp and bivouac, see FM 100–5.

CHAPTER 6
MEDICAL SERVICE ON MARCHES

115. General

A rapid and efficient movement of troops combines appropriate transportation, aggressive leadership, effective staff planning, and responsiveness by well-trained units. The nuclear battlefield increases the requirements for efficient ground movement. The characteristics of such movements are speed, control, security, and secrecy. Marches are troop movements made by foot, by motor, or by a combination of both. Marches are conducted by day or by night, and are classified as administrative and tactical. For the purpose of this manual, tactical marches only will be considered. A tactical march is based upon the supposition of early ground contact with the enemy and, therefore, is conducted with primary emphasis on the movement of the troop body in combat-ready formation.

116. General Considerations of Medical Service for Marching Columns

Medical personnel administer emergency medical treatment along the route of march particularly during halts. When a medical soldier falls behind performing such duty, he hastens to rejoin his unit when he has finished. Patients are disposed of as follows:

a. If the patient is able to continue the march without further assistance, he is sent to rejoin his unit. If he is able to resume the march with some assistance, he is relieved of all or part of his heavy equipment and provided with transportation on some vehicle of the unit train. His equipment, if he continues the march on foot, may be placed on a unit vehicle, in an accompanying ambulance, or distributed among his abler comrades.

b. If the patient is unable to continue the march, he walks, is carried, or is transported in a vehicle, as the case may be, to the next march collecting post (par. 121).

117. General Considerations of Medical Service With March Security Forces

The organization and operation of the medical service of a security force will vary widely with the strength, composition, mission,

and zone of operations of the security force. Certain general principles apply, but even these must be interpreted in connection with the special elements in each situation. The more important of these principles are the following:

a. In every security force, elements as large as a battle group must be accompanied by their battle group medical platoon; those as large as battalions, by their battalion medical sections; and others by a proportionate share of the medical personnel of the unit from which they are taken.

b. Unless medical contact can be maintained between the various elements of the march security forces and the main body, division medical ambulances are normally attached to each of these elements and the responsibility for evacuation of these elements decentralized to the respective commanders thereof.

c. The strength and composition of the reinforcing medical troops are determined by the strength of the security force, its mission, and the probable enemy reaction thereto. If decisive combat is a possibility, additional medical service will be required. The zone of action of the security force is also a determining factor in the strength and composition of reinforcing medical troops. The greater the distance it operates from the main body, the more independent it must be of the main body. If, within a reasonable time, the main body will traverse the zone of operation of the security force, the medical reinforcements need not be so great. The bulk of the patients of the security force may be safely left, with attendants, for the main body to evacuate, thereby reducing the need for medical means, particularly ambulances.

d. Clearing facilities are not ordinarily attached to a security force smaller than a battle group or combat command. The patients of smaller security forces are cleared through the clearing station of the main body or, if it is more convenient, through other medical installations in the area.

118. Medical Service With Covering Forces

The organization and employment of covering forces vary so widely that none but general doctrines may be safely stated. Medical personnel will be assigned according to the size of the covering force and are employed according to general doctrines of unit medical service. Collection and evacuation of patients are performed by supporting elements.

119. Medical Service With Advance Guards

Since the main body may be expected to follow the advance guard within a reasonable time, patients from the advance guard on the

march may be disposed of through the march collecting posts. However, in some situations, the advance guard may be expected to engage in serious combat before the main body can be deployed. In this event, there may be a considerable delay before the medical support of the advance guard can be undertaken by the evacuation section of a battle group medical platoon. Some additional personnel and ambulances should be attached to the advance guard in order to insure prompt support to its unit medical personnel, and should revert to the control of the parent unit as soon as march conditions cease.

120. Medical Service With Flank and Rear Guards

a. Flank Guards. Casualties occurring in this element must either be carried with the troops or transported to the main body.

b. Rear Guards. Depending upon the situation, the medical service of a rear guard will be that of an attack, a defense, a withdrawal, or a delay on successive positions. Since the general operation of a rear guard is a retrograde movement, time becomes an important factor and the medical service should be augmented accordingly (ch. 9).

121. Collection of Patients

A march collecting post is a station along a route of march to which unit medical personnel may transfer those individuals who are unable to continue the march. This post is operated by one or more medical aid men and is equipped with litters, blankets, dressings, and simple medicines. A supply of potable water is most desirable, although this may have to be furnished in containers. The site must be adjacent to the route of march and should provide some comfort to patients, such as shelter or shade. If the road net permits ambulances to use routes other than those used by marching columns, march collecting posts should be located so as to facilitate the use of these routes.

a. Establishment of March Collecting Posts. The sites for march collecting posts are selected in advance and announced in the march order. The number of posts established depends upon the length of the march, the road net, the physical condition of the troops, and the weather. In general, they need not be closer than every mile or two and should not be farther apart than every 4 or 5 miles. Because of their more rapid rate of march and means of transportation available to each soldier, march collecting posts ordinarily are not used with reconnaissance elements and armored columns.

b. March Control. Medical personnel are attached, for march control only, to the advance guard. This detachment marches in rear of the reserve of the advance guard and drops off, at the

site of each designated collecting post, the personnel and equipment to establish that post. When any ambulance of this detachment drops the last of its load, it remains at that particular collecting post and reverts to the control of the parent medical unit. This detachment must not be confused with reinforcements for the advance guard.

c. Operating March Collecting Posts. Although a march collecting post is a temporary installation and only very simple procedures may be undertaken, the general principles of the operation of a collecting point apply (par. 129*b* (2)).

d. Closing March Collecting Posts. Each march collecting post is closed when the rear of the column approaches. An ambulance element marches near the rear of each column to gather the personnel from the closed posts.

e. Other Methods of March Collection. When the establishment of march collecting posts is impracticable, patients may be collected and evacuated by one or two other methods. They may be dropped by the wayside and collected and evacuated by a detachment of medical personnel and ambulances marching at the rear of the column; or they may be carried in ambulances which are attached to battle groups or smaller units and kept with these units until they can be transferred to the division medical service.

f. Division Ambulances. The task of evacuating march collecting posts is allotted to the ambulance company of the division medical battalion. The road net may require these ambulances to use the same routes used by marching columns; however, this should be avoided whenever possible. When other routes are used, provision must be made for the evacuation of patients dropped at places other than march collecting posts.

122. Clearing Station

Normally, the clearing station, if established at the previous camp or bivouac, will serve for the early stages of a march therefrom. As the distance between the marching columns and the clearing station increases, it must be displaced to a more suitable location or an additional clearing station established. Ordinarily, not more than one such displacement or new establishment will be required in any one day of march, although if the enemy is encountered, a new location may be required at once.

123. March Dispositions of Medical Units

The procedures set forth in this paragraph apply only to medical units, or elements thereof, that are not engaged in furnishing the

medical service of the march; nor are they intended to restrict any dispositions that may be desirable in marches conducted solely for the purpose of training. The application of one fundamental is essential: *Medical units must be so disposed in marching columns that they may enter combat without delay in the support of such units as they are expected to support.* If separated in the column from the units they are expected to support in combat, medical units will experience great difficulty in establishing contact after development has commenced and may fail altogether in the performance of their mission. For this reason unit medical personnel must march with their respective units. Elements of the division medical service must be so placed in columns as to facilitate contact with the combat elements which they will support if and when the enemy is encountered.

a. Unit Medical Personnel. If there is more than one medical officer with a unit, the surgeon marches with the commander and the others with the bulk of the medical elements. If there is but one, he marches with the bulk of the medical unit. Company aid men move with their respective companies. The battle group medical platoon or battalion medical section, less company aid men, marches with combat medical equipment in organic vehicles as a rear element of the main body.

b. Division Medical Units. The proper medical support for each major combat element accompanies it, and usually is attached to it for march control. Normally, a clearing platoon accompanying a major combat element marches with the headquarters element of the combat element. This disposition of medical support minimizes delay in establishing division medical service in the event of combat. Selection of division medical service units to reinforce security forces and provide medical service on the march should be restricted to those medical service elements not allocated to combat elements which will probably become involved in combat immediately upon coming into contact with enemy forces.

124. March Control of Medical Units

An infantry division may be divided into 7 major march serials: 5 battle groups, division troops, and division trains. However, the tactical situation may require that elements of division artillery, other division troops, and the division trains move with the battle groups. Ambulance elements of the division medical battalion usually accompany each of these march serials. The remainder of the division medical battalion marches as an element of the division trains.

a. Division medical units or elements thereof engaged during

the march in the collection and evacuation of patients operate directly under division control, except that units engaged in establishing march collecting posts are placed under column commanders *for march control* only. Once such collecting posts are established, they are operated under control of the parent units.

b. The elements of a division medical battalion that march with the division trains cannot be operated by the medical battalion commander until they have been released from march control by the division trains commander. When march conditions cease, such as entering in combat or arriving in camp or bivouac, the division trains commander releases the division medical battalion to the control of the battalion commander.

125. References

For general principles governing marches, see FM's 7–100, 17–100, 21–18, 25–10, and 100–5.

CHAPTER 7
MEDICAL SERVICE IN OFFENSIVE

126. Purpose and Characteristics of Offensive

The purpose of offensive action is to destroy or capture the enemy's armed forces or to seize territory in order to further future operations. Offensive action permits the commander to exploit the initiative and to impose his will on the enemy. Offensive operations in nuclear warfare are characterized by nuclear fires, swift maneuver, violent assault, and rapid exploitation. Speed in exploiting the effects of firepower is essential. Air, ground, and water transport are used to increase mobility. Nuclear fires are additional firepower of large magnitude to complement other available fire support. For protection against enemy nuclear fires, units remain dispersed as long as possible. Units seek to gain surprise and preserve secrecy by capitalizing on cover, concealment, and deception. Upon seizure of the objective, minimum forces consolidate gains while other forces rapidly disperse. The characteristics of the attack in nonnuclear warfare are similar to those of nuclear warfare except that combat power is drastically reduced resulting in a diminishing of the tempo and violence of the attack. The lack of nuclear fires reduces the degree of dispersion required but concurrently introduces the possibility of significant losses from the surprise use of nuclear fires by the enemy.

127. Characteristics of Offensive Influencing Medical Service

The form of an attack will have considerable influence on the operation of the medical service in regard to the number of casualties and their distribution in time and space, the allocation of medical support, the location of medical installations, and the movement of medical units.

a. Surprise. Surprise is an important factor in the success of an attack. Preparations must be as nearly secret as possible. This requirement will frequently prevent the movement to position and establishment of medical troops of the larger medical installations until immediately before, or even after, the start of the attack.

b. Planning. The attacker has the initiative and, so long as he holds it, directs the course of action. Except in uncoordinated attacks, action is planned in advance. Comparable advance planning

of the medical service is essential, and, to effect this, all essential information must be available in advance to the responsible medical officers so that they can prepare their plans to support the operation.

c. Exploitation of Success. Except in limited attacks, when the enemy has been forced to withdraw from his defensive position, the success gained is rapidly exploited in order to prevent his organization of a new defense on a rearward position; to force him to retreat; and, finally by energetic exploitation and pursuit, to turn the retreat into a rout and destroy him.

128. Medical Doctrine of Offensive

Attack from the medical standpoint consists of the forward movement of areas of casualty density into the hostile position; medical installations must be advanced to support this movement.

a. Mobility is the salient requirement of medical service in attack.

b. The ability to move medical installations depends on their timely evacuation by supporting medical troops.

c. Unit commanders are responsible for the collection of their casualties at unit aid stations.

d. The vital link in the evacuation system lies between the aid station and its supporting medical installation.

e. Unit aid and division clearing stations are located to support areas of casualty density in the attack.

f. Casualties from combat units attacking over a wide front will be slow coming into aid stations because the length of the patient haul is great and hostile fire that prevents the advance of combat elements retards the collection of casualties.

g. Initial commitment of medical units or elements and establishment of treatment facilities is minimal in order to preserve mobility and to achieve the flexibility needed to compensate for unforeseen shifts in areas of casualty density.

129. Battle Group Medical Service in Attack

In the attack, the mission of the infantry (which is to close with the enemy and destroy or capture him) is accomplished by a combination of firepower, maneuver, and shock action. Enemy and friendly fires and maneuver of friendly combat elements increase the difficulty of the medical service, both in maintaining contact and in removing casualties from the battlefield. Since the effectiveness of its support ceases when it loses contact, each element of a

battle group medical platoon must subordinate other considerations to that of maintaining contact with the troops it is supporting.

a. Battle Group Medical Platoon. Prior to combat, before reaching the zone of hostile artillery fire, march columns are broken up into smaller columns which march to designated dispersed assembly areas. Depending upon the situation, a battle group may remain in one march column, although moving cross-country until it reaches the assembly position, or it may break up into company or even smaller columns before reaching the assembly position. During development, the battle group medical platoon, less company aid men, marches at the rear of the battle group. As the battle group breaks up into smaller columns, medical aid-evacuation teams are deployed to cover the entire battle group front.

(1) *Assembly area.* An assembly area is an area prescribed by a higher commander for the assembly of a unit for final preparations for the attack. Unit commanders regain control of scattered elements and organize their command for combat; packs are dropped, extra ammunition issued, reconnaissances and plans completed, and orders issued. Here the battle group surgeon receives the battle group order, completes his plans and issues his own orders. He orders extra medical equipment to be issued to company aid men and medical aid-evacuation teams. Frontline ambulances will be deployed as far forward of the aid station as is possible to shorten litter hauls and to speed evacuation from the frontlines to the aid station.

(2) *Approach march.* From assembly positions troops advance in the approach march. Units march in smaller columns at increased intervals and distances and make full use of cover and defilade while moving toward the line of departure. Medical aid-evacuation teams are deployed to cover the widening battle group front, and the remainder of the medical platoon, less company aid men, moves along the axis of advance. The battle group surgeon remains with the battle group commander in order to keep himself informed of developments in the situation.

(3) *Line of departure.* A line of departure is designated by a higher commander for the purpose of coordination of the attack. Units move forward to the attack from the line of departure at a designated time. Initially, this movement may be a resumption of the approach march, but when the effectiveness of hostile fire makes it necessary for the infantry to return the enemy's fire in order to

continue the advance without excessive losses, the advance by fire and movement is begun. It is at this point that the character of medical service changes from that of the approach march to one of combat.

(4) *Company aid men.* Company aid men report to their respective companies prior to the attack and remain with them throughout.

(5) *Evacuation section.* Unless contraindicated by other considerations, medical aid-evacuation teams are deployed initially across the battle group front on the basis of the strength of the assault, the number of units therein, and the task allotted each unit. The initial distribution of medical aid-evacuation teams is modified as the situation changes. Medical aid-evacuation teams supporting companies not actively engaged may be kept in reserve. Medical aid-evacuation teams follow the assault troops as closely as is consistent with reasonable safety, taking full advantage of all available cover and defilade. The medical aid-evacuation teams of the section will operate as close to the company positions as the tactical situation will permit. Close ambulance support will shorten the length of litter hauls and speed evacuation to the aid station.

(6) *Aid station.* The aid station is not established, or is only partly established, before the need therefore can be foreseen, or when there is slow progress or no progress at all. However, each battle group surgeon observes the terrain as he advances, making tentative selections of sites against the time when he must establish his aid station. When established, only such part of the aid station is set up as appears to be required in order that mobiilty can be retained for future moves. The aid station is capable of splitting and moving by echelons, if necessary, so that the advance may receive continuous support. During the periods in which there is no fixed location for the aid station, patients will be evacuated along the axis of advance along which the aid station group will move. The aid station group will treat the patient who may then be evacuated by either a field army air ambulance or a division motor ambulance, or left at a predesignated location for evacuation by supporting medical units.

b. Collection of Casualties in Attack. The general nature of the operations of collection does not differ in the attack from other forms of combat. Personnel from the evacuation element of the

infantry division medical battalion report to the battle group medical platoons prior to the launching of the attack. Normally, it is desirable to have one or more ambulances from the division medical battalion located with the aid station group so that contact between the aid station and the division medical battalion can be uninterrupted. Contact may also be maintained by radio and/or wire communications.

(1) *Evacuation.* Evacuation from the combat elements of the battle group will be effected by employment of medical aid-evacuation teams. These teams will operate whenever possible within the company areas evacuating patients to a company aid post in the rear of the company where cover and defilade are available. From that point, these teams use their frontline ambulances to evacuate patients to the aid station. In a fast-moving situation, casualties may be overlooked. Accordingly, the members of the medical aid-evacuation teams and the aid station group should search the area as much as the situation permits. They should also look for walking wounded who may have been directed to the aid station by the company aid men or the medical aid-evacuation teams as they move along the axis of advance.

(2) *Collecting points.* Collecting points or company aid posts are established to the rear of the battle group's rifle companies in a location affording defilade cover. They may be manned or unmanned according to the mission, terrain, weather, and medical troops available. Casualties are evacuated from platoon positions to collecting points by litter or to the company aid post by litter or front line ambulance as the situation permits. Litter bearers may be provided by the clearing company of the division medical battalion. By using frontline ambulances to evacuate collecting points, litter hauls are shortened and speed of evacuation increased. In fast-moving situations, collecting points may be established along the axis of advance so that casualties brought to the aid station may be treated and then left at these collecting points for evacuation by supporting medical units. This system enables the aid station to remain mobile for close support of the combat elements. When used in the rear of the aid stations, such collecting points should be predesignated and coordinated with the division surgeon so that supporting medical units will know where to go to evacuate these casualties.

130. Medical Service of Separate Units of Division

a. All firing batteries of the division artillery are tactically mobile with organic transportation. Movement ceases when it becomes actually engaged, and the operations of its medical personnel do not vary with the type of the attack. During changes of position in combat, the medical service is that of the march. Artillery is usually placed well forward initially in the attack and is deployed less in depth than in defense. In successful attacks, artillery moves forward in such a manner as to assure close support of the infantry. Since the firepower of artillery is so important to the advance of the infantry, and the great tactical mobility of artillery permits it to be withdrawn from action in one position and recommitted elsewhere with minimum delay, artillery is not held in reserve although it may reserve its fire while occupying a position.

b. Medical sections organic to their respective units and company/battery aid men support their respective companies/batteries. The unit surgeon must keep abreast of the situation in order to close his aid station in time to accompany the unit in a change of position. Aid stations are established, at least partially, wherever the unit occupies a position.

131. Division Medical Service in Offensive

The difficulties encountered by a divisional medical battalion in the attack are associated with heavy casualty rates and the maintenance of contact with the supporting force of the attack element.

a. In general, the attacker may be expected to suffer heavier casualties than the defender until the defense is disrupted and disorganized.

b. Attacking units, although maintaining contact, make no attempt to maintain alinement with like units on their flanks. Each attacking unit attempts, by taking advantage of the terrain, to outflank easily defended areas. Thus, there frequently is no regular battle line upon which a division medical battalion may adjust its dispositions. Contact with aid stations becomes an individual problem with each station. Some stations may become so far advanced that evacuation from them is most difficult, while the holding up of units on their flanks may prevent the advance of supporting units.

c. In a meeting engagement the time available for medical planning is considerably reduced, and there is no time for detailed reconnaissance prior to the issuing of orders. Orders, both those received and those issued, are fragmentary.

d. So far as the medical support is concerned, boundaries between

units may be in doubt, the locations and formations of attacking units uncertain, and friendly artillery positions and other important locations unknown. Communications may be slow and uncertain. So far as possible, these difficulties are obviated by assigning missions to the subordinate elements of the division medical unit, and by leaving to those subordinate medical unit commanders the decisions concerning the details. Medical support may be furnished on an area basis.

e. An effective reserve of medical support must be retained until the situation is clarified, when adjustments of the medical service may be made.

f. Most important to the employment of a division medical battalion in a meeting engagement are its dispositions on the march.

g. When there is time available to plan the medical service for the attack, adequate reconnaissance will be made, detailed plans drawn, and complete orders issued. Subordinate elements are moved to their initial battle positions prior to the launching of the attack. Personnel are afforded every opportunity to rest, supplies are replenished, and contact with subordinate medical units is established early.

132. Division Ambulances in Attack

Ambulance service of a division medical battalion in the attack operates in accordance with the normally accepted procedure (pars. 70–84). Ambulance service may be augmented by aircraft organic to the division and by aircraft or ambulances organic to the field army. Normally, all critical patients selected for aerial evacuation out of a division are moved in air ambulances of the field army medical service.

133. Clearing Stations in Attack

a. The clearing station(s) should be established as far forward as the tactical situation will permit.

b. When enemy covering forces must be pushed in and the position developed before the attack can be fully planned, it will be necessary to establish a clearing station, initially, behind the forces thus engaged. When the plan for the attack is developed, it may be found that the initial location of the clearing station is not suitable. In this event, the station must be moved to a suitable location.

c. In other situations, the main attack may be launched at such distance from the secondary attack(s) that no single location for a clearing station is satisfactory to all elements of the division.

The unit must be divided in such situations and two or three clearing stations operated. In rapidly moving situations over a widespread area, each clearing platoon may find it necessary to split into two sections so that adequate medical support may be rendered. The stations may advance by echelon of sections or by leapfrogging one platoon past another in order to keep in close support of the combat elements.

d. In the attack, the clearing platoons may find it more advantageous to select sites along the axis of advance so that contact with the units supported will be uninterrupted.

134. Medical Service in Main and Secondary Attacks

a. Before formulating the medical plan, the surgeon makes a medical estimate. The major casualty area of the division will frequently be in the zone of the main attack; however, friendly and enemy use of nuclear weapons may result in the secondary attack forces or the reserve receiving the greatest casualties. As the main attack accomplishes the primary task of the division, it receives first priority in the allocation of combat power (troop units and fires). Generally, forces for an adequate reserve have higher priority than forces for the secondary attack. The division commander's allocation of forces indicates roughly the areas which are likely to have the greatest casualty density. The surgeon allots his medical support accordingly. The main attack normally receives the greatest support.

b. In the main attack, the major casualty areas will normally be in the zones of the subordinate elements making the principal effort of that attack. The lesser casualty areas will be in the zones of the remaining subordinate elements which make the secondary effort of the main attack. The strength, frontage, and probability of advance of the combat units in each effort again measure their relative combat importance and their requirements for medical support. The division medical battalion commander must, therefore, have knowledge of the plan of operation of each combat grouping for the determination of its area of casualty concentration in order to adequately prepare plans for medical support of such grouping. These plans should consider the utilization of aircraft, when available, for augmentation of surface evacuation means. Such augmentation will speed evacuation and increase the mobility of treatment facilities by assisting in relieving the patient load of these facilities.

c. In the secondary attack, the major casualty areas will normally be in the zones of action of the principal effort of that attack. Battle groups attacking over a broad front against the enemy's

prepared position will incur fewer casualties because of the dispersion of troops. The casualties may be slower in getting to the aid station, because the same fire that checks the advance of troops may limit the use of frontline ambulances forcing a greater dependence on litter haul and inhibiting casualty collections. Since the secondary attack may have to move at the same rate and in the same depth as the main attack for successful accomplishment of the tactical mission, there is an equal need for mobility of the aid stations supporting the secondary attack.

d. Clearing stations are located under the considerations indicated in paragraphs 85 to 99 inclusive.

135. Medical Service in Envelopments

Medical service in envelopments conforms to the considerations just discussed. The medical service is disposed to give preferential support to the main effort and to displace its installations when necessary toward, or along the axis of advance of, combat elements. Casualties will be heavy in those units of the main effort near the hostile organized positions and may be slow coming in until the attack reaches its objective.

a. Unit Level Medical Service. Locations and operations are as previously discussed.

b. Ambulance Elements. Allotments and operations are normal. Reserve ambulances must be utilized in the later stages of the attack to evacuate the extending flank of the envelopment or to participate in a pursuit.

c. Clearing Station. The clearing station will be established with one platoon initially active. Clearing stations will leapfrog forward in support of the main effort and in its zone.

136. Medical Service in Penetrations

Medical service in this form of attack conforms in general to what has been given. Preparatory fires will be more intense in the area where the penetration is to be made. Hostile counterattacks in the later stages of the penetration may be severe. The attack will probably progress slowly, initially, with heavy casualties, and rapidly when the position has been ruptured. The use of nuclear weapons may develop a sudden and rapid penetration so that all phases of the attack may be characterized by rapid movement and immediate exploitation. Collection will be slow, initially, but more rapid as the attack progresses favorably. If the attack fails, many casualties will be captured and collection may be limited until after dark. Ambulance evacuation will be slow and difficult because of

damage to the roads in both friendly and enemy areas. The utilization of available Army aircraft will assist in alleviating the obstacles to evacuation which may be due to terrain, damage to roads, or denial of routes by the enemy.

a. Reserve Elements. Reserve elements must be employed in support of the main attack to pass through the elements in operation, or to reinforce them during the conduct of the attack.

b. Ambulance Elements. Allotments and operations will be normal.

c. Clearing Elements. Location and operations are normal. The forward displacements of the clearing station(s) may be difficult if there is extensive road damage which may require establishment in an intermediate location until a motor road has been provided.

137. Medical Service in Turning Movements

The medical service of this form of attack departs from the normal in certain important respects because of the special tactical characteristics of the operation. The medical service subdivides for combat by moving the bulk of its support to the rear of the turning movement to support the main attack, while the remainder stays with the secondary attack.

a. Initial Positions for Medical Units. Since the line of departure, the formation of the attack, and the boundaries between units in the main attack are not known until the commander making the principal effort has formulated his plan of attack, initial positions for medical units are chosen in rear of the infantry assembly areas. Stations may be partially established to care for casualties resulting from the march and from artillery fire in the assembly area and those occurring during the approach march. When the principal effort begins, these installations advance to battle positions.

b. Casualties in Secondary Attack(s). Casualties in the secondary attack(s) will be slow coming in because of the wide unit frontages and disposition of personnel. In the principal effort they may be light if the enemy is surprised and the advance is rapid, or heavy if the advance is slow against substantial resistance.

c. Reserve of Ambulance Elements. A reserve of ambulance elements is kept on hand or assembled to support a pursuit in case of hostile withdrawal.

d. Control of Widely Separated Elements. The control of widely separated elements of the medical service in turning movements is a serious problem to the respective medical commanders.

e. Unit Level Medical Service Elements. Distribution and operations will be normal.

f. Ambulance Elements. Allotment and operations will be normal.

g. Clearing Elements. Clearing elements, less a small reserve in support of the secondary attack(s) will move to the rear of the force making the turning movement, and set up a clearing station with one platoon initially active. This station will not displace until it becomes easier to move the station to the casualty than to move the casualty to the station.

138. Medical Service in Exploitation and Pursuit

a. Medical Service of Direct Pressure Force. Due to enemy disorganization and probable demoralization, friendly battle losses are light in comparison to other forms of offensive action. However, fatigue of the pursuing troops may contribute to the casualty rate. Medical installations must retain the same degree of mobility as the troops being supported. Evacuation elements should be deployed well forward, and predesignated collecting points along routes of evacuation established for the transfer of patients from unit level evacuation elements to division level elements.

b. Medical Service of Encircling Force.

(1) Unit medical service will be similar to the medical service in support of any rapidly moving attack. Unit level treatment facilities must remain mobile to support a tactical force that will move rapidly and for great distances. The attachment of division ambulances to the encircling force may be required in order to insure the timely evacuation of patients from the aid stations.

(2) Until secure communications can be established between an encircling force and the medical service agencies supporting the direct pressure force, it will be extremely difficult to clear the encircling force of its casualties. The employment of medical air ambulances and divisional aircraft to clear forward medical installations should be included in the evacuation plan. Provision should be made for the temporary care and treatment of casualties by attaching a clearing platoon to the encircling force. This platoon will establish and operate a clearing station at the rear of the positions occupied by the encircling force and render such treatment as is possible until casualties can be evacuated further to the rear.

(3) Unit level medical elements also accompany that portion of the encircling force that is air transported and landed in the rear of the retreating enemy forces. The method of evacuation to the aid station is governed by the available transportation in the zone. Medical aid-evacuation

teams are employed to evacuate to collecting points where patients are transferred to frontline ambulances. The ambulances transport the patients from the collecting points to the aid station. If frontline ambulances are not available, because of limited air transport space, then reinforced litter bearer support from the division medical battalion should be provided for the force.

(4) Evacuation from the aid station is likewise governed by the means available. Initially, patients will be evacuated by either air resupply elements returning to the rear, or by field army air ambulance elements, or a combination of both. As land routes of resupply are opened, ambulance elements of the division medical battalion can be brought forward to provide additional means of evacuation to the rear.

139. References

For general principles regarding offensive operations, see FM's 7–100, 17–100, and 100–5.

CHAPTER 8
MEDICAL SERVICE IN DEFENSE

140. General

a. Defensive operations on the nuclear battlefield are characterized by flexibility, dispersion, and the necessity for additional defensive areas to be established in greater depth. Tactics employed must be capable of absorbing and containing severe initial shock of enemy attacks. Possession of nuclear weapons enables the defender to use the defensive tactic to deceive and destroy the enemy. Opportunities to regain the initiative are more numerous and, in the conduct of the defense, offensive action in conjunction with the use of nuclear weapons is emphasized. Defensive operations are conducted aggressively in order to destroy the enemy and to maintain high morale among friendly forces.

b. The defense is employed by a division in order to deny a vital area to the enemy; protect a flank; contain an enemy force; gain time; economize forces; or bring about maximum destruction and disorganization of the enemy. The defensive may be assumed by a division voluntarily, when forced to do so by the situation, or when ordered by higher headquarters.

141. Characteristics of Defense Influencing Medical Service

It is not anticipated that all of the characteristics of defense will affect the medical service of every defensive situation. However, in general, all of the following factors must be considered in the medical service of any defensive situation:

a. The fortification of a position is limited only by the time and means available. However, protection should be sought more in the distribution of defenses in depth and in width, the adaptation to the terrain, concealment from hostile observation, and dispersal of personnel than in the strength of construction. Medical installations in forward areas should be protected by a degree of organization of the ground comparable to that effected by combat troops. The amount of organization will vary upward from foxholes for company aid men to medical installations improved with logs, large stones, or other available materials.

b. The allotment of medical support to infantry battle groups by

the division medical battalion will be based upon their anticipated needs as compared with those of the remainder of the division. Factors influencing their requirements include their mission, width and depth of defensive area, terrain, avenues of approach, and allocation of fires.

c. A more detailed reconnaissance of the terrain as permitted by the situation is mandatory since medical planning can be more thorough and detailed in defense than in attack.

d. The defense, no less than the offense, whenever possible, makes use of the element of surprise. This will materially affect the location and degree of concealment of medical installations and the movement of medical units.

e. The conduct of the mobile defense with the maintenance of large reserves will entail the concomitant maintenance of large medical reserves for the support of the counterattack or counter-offensive.

f. The distribution of forces in depth, as well as the possibility of enemy penetrations of the position without actually disrupting it, requires that medical installations be located, in general, farther toward the rear than in the attack.

g. Since the defensive position is normally covered by outposts to the front and, if necessary, toward the flanks of the forward edge of the battle area, the medical service of outposts or covering forces is an important item in the medical service of the defense, particularly when outposts are expected to resist the enemy.

142. Medical Doctrines in Defense

Medical doctrines in defense may be summarized as follows:

a. Medical reserves must be held out in proportion to the local and general reserve.

b. Normally, division clearing stations are established and subsequently kept mobile by frequent evacuation by the next higher command in order that they may be moved rapidly as the tactical situation may dictate.

c. The disposition of medical service units and installations in defense is based upon the division commander's overall plan of defense. In the mobile defense, such disposition must anticipate the withdrawal of certain forward units, whereas in the position defense such withdrawal will not be contemplated. The dispositions to be made in case of an unsuccessful defense and consequent withdrawal are discussed in chapter 9.

d. The evacuation lag usually reaches considerable proportions in defensive operations.

e. Medical installations may be located farther to the rear in the defense than in the attack.

143. Battle Group Medical Platoon in Position Defense

Except when counterattacking, the infantry in position defense remains relatively fixed. Both local and general reserves may be moved from time to time. Units occupying defensive positions and engaging in the fire fight indulge in little movement. This permits a greater degree of initial organization of the medical service than in the attack. Normally, casualties will occur in well-defined areas, the locations of which are known in advance.

a. Battle Group Medical Platoon. When a battle group occupies a forward defensive area, the battle group medical platoon must provide the medical support for that area.

(1) *Company aid men.* The allocation of company aid men to each rifle company is on the basis of one per company. The organization of the forward defensive area varies with the terrain and other previously mentioned factors. Usually, it consists of subordinate subdivided defense areas each normally occupied by a rifle company. These areas are known as company defense areas. The organization of any particular company defense area may be such that more than one aid man will be required. The two company aid men in reserve at the battle group aid station may be made available to reinforce the medical support of one of the rifle companies when the need is indicated.

(2) *Medical aid-evacuation teams.* In the position defense, medical aid-evacuation teams should not be deployed prematurely. The battle group combat elements are in relatively fixed positions. The medical aid-evacuation teams can be allocated when the direction of the enemy attack becomes apparent. The danger of losing contact with forward elements is not as compelling a consideration as it is in the offense. The probable areas of casualty density, the characteristics of the terrain, the organization of the defensive areas, and the distances to the collecting points or company aid posts must all be considered in allotting medical aid-evacuation teams. Collecting points or company aid posts should be established near each rifle company command post to serve as a control and transfer

point litter and frontline ambulance evacuation means. Litter bearer squads may be provided by the division medical battalion.

(3) *Battle group aid stations.* To avoid being involved in minor penetrations of the battle area, the battle group aid station is normally located farther to the rear in the defense than in the attack. It is not normally located forward of the battle group reserve elements. The exact site or sites are determined by the individual characteristics of the battle group defense area. The aid station is completely established and the degree of protection offered by the terrain is continually improved upon within the limits of time and means. If the width and depth of the area, the terrain, the enemy avenues of approach, the probable areas of casualty density, or the routes of evacuation so dictate, the establishment of two aid stations either in depth or laterally may become a necessity.

b. Medical Service of Division Reserve. Aid stations of reserve battle groups are not established but initially maintain the same degree of mobility as the troops served until these reserves are committed.

144. Division Medical Service in Position Defense

A medical battalion in the position defense can plan and organize its support more thoroughly than in the offense. The operation is conducted over familiar terrain, the combat elements remain relatively fixed in position, and there is a longer period available to locate and establish installations. These installations must be protected against the effects of hostile artillery and air action.

a. Ambulance Company. Ambulance support of the combat elements must be flexible. A large reserve should be retained until the direction of the enemy attack is established. Hostile efforts to disrupt communications may require the use of armed convoys to assist in the evacuation of patients from the battle group aid stations. Alternate routes from the aid stations back to the clearing station should be selected to reduce the effects of enemy infiltration and ambush.

b. Clearing Company. The clearing company will establish one or more clearing stations as indicated by the tactical disposition of the combat elements, the width of the division zone, and the available routes of evacuation from forward areas. It is desirable to retain as large a reserve as possible to meet any change in the tactical situation. The clearing station, or stations, should be

located further to the rear than in the offense to avoid the danger of becoming involved in penetrations of the forward defensive elements and to escape the effects of hostile artillery. Concealment of the clearing station may be necessary for the maintenance of security of nonmedical installations and for protection against hostile air action.

c. Evacuation by Air. The use of helicopter ambulances for the movement of critically wounded personnel from forward areas must be carefully planned to avoid disclosure to the enemy of concealed defensive positions. Maximum use of returning supply flights for movement of noncritical or routine cases must be assured by standardized coordination procedures.

145. Medical Service in Mobile Defense

a. Areas of Casualty Density. Areas of casualty density will be more difficult to define in the mobile defense, since the retention of terrain is not as restricting a consideration in the mobile defense as it is in the position defense. There is greater likelihood of frequent and rapid displacement to meet the enemy attack when the direction of the attack is determined. When forces move, areas of casualty density shift likewise.

b. Evacuation. Units are widely dispersed in the mobile defense.

(1) Routes of evacuation are lengthened and the capability to evacuate is reduced proportionately.

(2) Routes of evacuation may be severed by enemy infiltration or encirclement. This would result in cessation of evacuation or a requirement for armed convoys, armored personnel carriers, and additional aerial evacuation means to evacuate patients to the rear. In situations that involve enemy infiltrations, alternate routes must be considered as well as lateral evacuation to units not affected by the infiltration.

c. Battle Group Medical Installations. The distance between rifle companies is greater in the mobile defense than in the position defense. The battle group zone of responsibility is also larger. The need for security is increased due to a constant threat of enemy action from any and all directions within the defense area. One central location for an aid station may not always be available. In the mobile defense, the establishment of two aid stations will often be necessary. The stations should be located within defense perimeters of units occupying rear positions. A greater degree of mobility is required in the mobile defense because of the fluid

nature of the operation. Therefore, the division ambulances must provide close support to keep the aid stations free of excessive patient accumulation.

d. Division Medical Service. Basically, division medical service will not vary as a result of the type of defense employed; however, the considerations vary.

(1) The bulk of the division strength is deployed to the rear of the forward defense area. The forward elements normally are not expected to expel the enemy by an attack. At the opportune time, a mobile striking force, formed from the division reserve, will counterattack to destroy or expel the enemy. When the bulk of the division strength becomes a mobile striking force, the medical battalion must be prepared to support it.

(2) The clearing elements must remain free of any heavy patient accumulation that would result in immobilizing these elements. In this respect, the field army medical service must render close and continuous evacuation support to the division.

(3) The necessity for the establishment of more than one clearing station is often likely to exist. Multidirection enemy attacks, multiple routes or directions used by the mobile striking force, or the characteristics of the division defensive zone will often create the need for more than one clearing station in the mobile defense.

146. Medical Service in Counteroffensive

This operation, which is offensive in character, utilizes the defensive as a temporary means primarily to create a favorable condition for counteroffensive action. The defensive phase may consist of one or more delaying actions with the mobile defense of a position.

a. The Defensive Phase. The operation of medical units in the defensive phase is the same as has been discussed in previous paragraphs. Since large general reserves are maintained in this type of operation, large medical reserves must be held mobile to support the counteroffensive phase. Time made available during the defensive phase will afford the medical service sufficient time to plan in detail for the activities for the counteroffensive phase.

b. The Counteroffensive Phase. When the counteroffensive is assumed, medical installations and dispositions are adjusted to support the type of offense planned by the commander. After the

initiation of the counteroffensive, the medical service follows the principles established for the attack.

147. Medical Service of Outposts and Covering Forces

An outpost is a security force posted at some distance from the main body of troops to protect it from hostile ground observation and against a surprise attack. The distance that it operates from the main body depends upon its strength, composition, mission, and enemy capabilities. Its composition depends upon the situation, mission, and terrain. The general outpost, when established, is normally provided by divisions or comparable elements assigned defensive sectors. Combat outposts are provided by battle groups occupying the forward defensive area. Reconnaissance and security forces may be used in lieu of a general outpost or a combat post, or both. The details of the medical service of an outpost will depend upon the organization, size, mission, and characteristics of the outpost.

a. Unit Medical Service. Company aid men are attached to each company of the battle group and proceed with their respective companies on outpost duty. Casualties may be evacuated from the outpost to an ambulance loading post or to the battle group aid station. When a battle group is all or part of a general outpost, the frontage assigned may require the establishment of two aid stations. If the mission of the battle group requires it to accept close combat, the principles of medical service in the defense apply. When the battle group withdraws from the general outpost line, the principles of medical service in retrograde operations become applicable.

b. Division Medical Service. Normally, division medical battalion ambulances are attached to the general outpost for evacuation of casualties to a clearing station. The use of helicopters to augment these ambulances is particularly appropriate because of the distance of the general outpost from other medical installations. If ambulances are not attached to the general outpost, evacuation of patients to a clearing station must be accomplished by the division medical battalion. A clearing platoon may be attached to the general outpost, or a clearing station may be established to support the outpost. Evacuation of patients from a combat outpost or a reconnaissance and security line is normally by medical aid-evacuation teams of the battle group medical platoon. As with the general outpost, helicopters may be used to good advantage to evacuate patients from collecting points located in rear of these security lines.

c. Medical Service in Withdrawal of Outpost. The general procedures of medical service in retrograde movements apply in the withdrawal of outposts (ch. 9). The wide dispersion of units and the rapidity with which they withdraw under ordinary conditions make collection of casualties difficult, but also operate to reduce the number of casualties. If the withdrawal is slow and interrupted by intervals during which the advance of the enemy is resisted vigorously, aid stations may be established in part and a medical service established comparable with that of defense. However, when the withdrawal is rapid, time does not permit the establishment of medical stations. Ambulances move along convenient axes, and litter bearers carry casualties laterally to the ambulances. The withdrawing combat troops should assist in the removal of casualties to the ambulances. Helicopters may be used to advantage for evacuation, particularly in rapidly moving situations.

148. References

For further details regarding defense, see FM's 7–40, 7–100, 17–100, and 100–5.

CHAPTER 9
MEDICAL SERVICE IN RETROGRADE MOVEMENTS

Section I. GENERAL CONSIDERATIONS

149. General

A retrograde movement is any movement of a command to the rear, or away from the enemy. It may be forced by the enemy or may be made voluntarily. These movements are classified as a withdrawal from action, a retirement, or a delaying action. In any retrograde operation, elements of an organization may execute two or more of these types, either concurrently or in sequence.

150. *Conduct of Retrograde Movements*

a. The conduct of retrograde movements includes the maximum use of minefields, demolitions, obstacles, nuclear fires, and contaminations in order to delay and canalize hostile pursuit and to assist in flank protection. Full advantage is taken of cover and concealment. Demolitions have a particular application in the destruction of abandoned materiel. Particular attention is given to the use of nuclear fires, mines, and barriers on likely avenues of approach of mobile forces.

b. Tactical aviation is employed against hostile aviation and is effective in delaying, harassing, and interdicting enemy ground forces at critical localities. The action of tactical aviation must be closely coordinated with that of the ground forces. Army aircraft are used for reconnaissance purposes; to supervise the operation; to assist in withdrawing troops; for moving supplies and equipment; in evacuating wounded; and for placing small forces with strong firepower at points where the enemy may be easily delayed.

c. Maximum advantage must be taken of available transportation to expedite movement of units to rearward positions, to conserve the fighting strength of the troops, and to gain time for the preparation and occupation of new positions. Normally, security forces are composed of highly mobile units.

d. Enemy ground and air forces may be expected to follow up relentlessly both day and night any retrograde movement and

to strike withdrawing columns from any direction. This situation necessitates continuous ground and air reconnaissance to both flanks and rear, rapid movement under cover of darkness, strong antiaircraft defense, availability of nuclear fires, and continuous all-around antitank defense particularly on exposed flanks. Mobile reserves, particularly armored and antitank units, are held out in order to counteract wide and rapid movements to the flanks and rear or penetration through the friendly front, and to counter any attacks by enemy airborne troops.

e. Limited objective attacks, feints, and any other measures that can be adopted are used to confuse the enemy. Movement at night and varied times of movement and formations are used to deceive the enemy.

f. Coordination and control of widely dispersed and fast moving units are difficult. Decentralization of control to subordinate units is required. Measures must be employed that will insure the attainment of a maximum of control under these conditions.

g. Plans for a retrograde movement must include provisions for the evacuation of supplies. Supplies may be prepositioned along principal routes of withdrawal in support of the operation. Those supplies, except medical, which cannot be evacuated are destroyed on position. Supply discipline must be emphasized at all times.

151. General Considerations of Medical Service in Retrograde Movements

The medical problems involved in retrograde movements may vary widely depending upon the type of operation, the enemy reaction, and the situation in general. For example, a daylight withdrawal is a very different operation from a night withdrawal or retirement after contact has been broken. It is impossible to establish firm rules that are equally applicable to all types of retrograde movements under all conditions, but there are certain factors that must be considered in medical planning in any retrograde movement regardless of type.

a. Time Factor. The number of casualties removed from any battlefield is dependent upon the *time and means* available. In stabilized situations and in the advance, time is important only as it affects the physical well-being of the injured, that is, it is not vital to the accomplishment of the task. In retrograde movements, time takes on increased importance. As available time decreases, the surgeon must evaluate his capacity to collect, treat, and evacuate all casualties. He must inform the commander early, where

necessary, that either means for evacuation must be augmented or casualties must be abandoned.

b. Casualty Rate. Depending on the type of operation, the size of the retiring force, the enemy reaction and nuclear fire capability, the terrain, and the weather, the casualty rate may be very heavy or negligible. So long as an aggressive enemy maintains contact with and denies freedom of action to the forces making the retrograde movement, the operation is the most costly in casualties of all military operations. These heavy losses must always be considered in medical planning, since movement almost always will have to be made under unrestrained hostile fire. In the attack, routes and rates of movement are adjusted to minimize this danger and the fire of the attacker will greatly decrease the effectiveness of the fire of the defender. A force conducting a retrograde movement therefore must retain a comparable degree of initiative or the fire of the attacker will be directed with great effect and will result in extensive casualties.

c. Evacuation.

(1) Evacuation in retrograde movements is more difficult than in any other type of operation since routes of evacuation ordinarily will be required for the movement of troops and materiel. Rearward movement of combat elements uncovers successive levels of medical service, thereby precluding their continued operation. Communication and control are difficult and may be disrupted by the enemy regardless of the care taken in the preparation of plans to offset this situation.

(2) The necessary measures taken to cope with the factors impeding evacuation during retrograde movements are beyond the scope of medical authority. If evacuation is to be accomplished successfully, positive action must be taken by the commander to facilitate the task. This task entails the inclusion of ambulances on the list of priorities for movement, provision for the transportation of slightly wounded to the rear in cargo vehicles, and clear-cut directives to subordinate commanders defining their responsibilities in the collection and evacuation of their casualties.

(3) Special emphasis must be exercised in the sorting of patients and consideration given to the type of transportation available for their evacuation. Seriously wounded patients should be assigned to the fastest and most comfortable means of transportation. Proper sort-

ing and the speedy evacuation of patients will expedite the evacuation process and tend to obviate the need for establishing complete medical treatment facilities by the retrograding units.

d. Augmentation.

(1) In a retrograde movement, time is a more critical factor to the medical service than it is in any other type of maneuver. Maximum effort is made to evacuate casualties to prevent their capture. The evacuation means of tactical units may be augmented when unit frontages and limited road nets restrict evacuation. Rapid evacuation can be facilitated by the attachment of ambulances to combat units. Critically wounded patients should be evacuated from battle group aid stations to field army surgical facilities by air ambulances of the field army medical service. Ordinarily, it is feasible to reinforce the medical elements in forward areas from the division level medical units.

(2) The number of medical troops required in forward areas is in inverse proportion to the amount of assistance in medical service that can be rendered by other services and the combat elements. The procedure of permitting troops of the arms and other services to fulfill their combat functions without handicapping them with the care of their casualties must be preserved. It must be kept in mind, however, that troops moving rapidly to the rear are not usually engaged in combat and, therefore, should be able to assist in the removal of their casualties. It is under such circumstances that time is most critical. When troops are forced to stop and engage the pursuing enemy, movement is suspended and time becomes less critical, with the result that the medical service may be able to place less reliance on the combat elements for assistance. A judicious application of such technique in a retrograde movement will result in evacuation of all casualties without interfering with the primary mission of the combat elements and without great reinforcement of the medical elements in forward areas.

e. Abandonment of Casualties. Casualties that cannot be evacuated must be abandoned. These is no middle course. Medical service is not alone in the responsibility of preventing the capture of casualties but shares such responsibility with the commander. The decision to abandon the wounded to the enemy cannot be

passed silently to the medical service by default. The commander must make this decision. The surgeon should insure that timely notice of the need to reach a decision is given to the commander. Medical personnel and supplies must be left with the wounded who may be abandoned.

f. Location of Medical Installations. Medical installations usually displace by echelon and hold patients for a minimum period of time during a retrograde movement. Locations for successive positions from forward to rear areas must be planned in advance for every medical installation involved in the retrograde movement. Since the general direction of movement is toward medical installations (i.e., to the rear), initial locations must be placed farther to the rear than in other types of operations. In any event, the next rearward location must be occupied by a medical unit ready to function before the forward location is closed.

g. Displacement. Frequency of displacement will be determined by the rate of movement of the force, the terrain, and considerations of security. Medical installations must be displaced before they are in danger of becoming involved in the actions of forces conducting a retrograde movement. Displacements can be executed either by echelons within units or by leapfrogging complete units.

h. Medical Service in Retirement or Withdrawal. More so than in the advance, it is very important that the main body does not become involved in combat. For this reason missions of security detachments may require them to engage in serious combat if the enemy becomes too aggressive. This will necessitate planning for medical support accordingly. Medical service support for security elements must be proportionate to the size, mission, and mobility of those forces.

i. Future Operations. Operations to be undertaken at the conclusion of the retrograde movement must be considered when planning the medical service for such movement, especially in the preparation for the latter phases of the movement.

152. Medical Doctrine in Retrograde Movements

In general, the medical doctrines as discussed in previous chapters apply to the medical service of retrograde movements; however, certain characteristics, as outlined in paragraph 151, tend to modify these fundamental doctrines.

a. The element of time is a very important factor.

b. Installations of the medical service within the division are progressively displaced to the rear in a timely manner in order

to maintain a normal pattern of evacuation (i.e., battle group and unit medical elements forward of the supporting clearing element).

c. The operation and movement of elements of the medical battalion may be decentralized to subordinate commanders for march control and security purposes. Medical command control is maintained by designating the initial and final positions and the column(s) with which the medical element(s) marches.

d. Evacuation of casualties is a major problem.

e. Personnel and ambulances from the division medical battalion, in many cases, will be required to reinforce unit medical service.

f. Army aircraft, operating under control of the appropriate command surgeon, will be used to facilitate patient evacuation from forward medical installations.

g. Timely evacuation of clearing stations by field army medical evacuation units is indispensable in maintaining mobility.

h. Wounded must be sorted carefully according to their condition and transportation requirements. Seriously wounded should be evacuated by the fastest and most comfortable means of transportation available.

i. Litter cases must have priority in evacuation.

j. Walking wounded may be moved to the rear by nonmedical vehicles or required to walk.

k. The decision to abandon the wounded is a command decision.

l. Medical personnel and supplies must be left with the wounded abandoned at any medical installation.

m. Security forces are supported by medical service means commensurate with the size, mission, and mobility of those forces.

Section II. WITHDRAWAL FROM ACTION

153. General

A withdrawal from action is the operation of breaking off combat with a hostile force for the purpose of regaining or preserving freedom of action of the main force. Contact with the enemy must be maintained, however, by reconnaissance and security forces.

154. Considerations Affecting Medical Service

These considerations are identical with those outlined in paragraph 151. In the event of mass casualties, the commander must decide whether he will fight to extricate the patients, whether

he will augment medical means, or whether he will abandon the patients. Medical support must be that which is appropriate to the decision. A sufficient portion of the medical elements must be held in support of the tactical mission. The entire medical service would not be committed in support of an enemy nuclear attack which does not involve the entire command. Rapid massing of air evacuation will alleviate the situation, relieve the division of a burden, offer the patient a better chance for recovery, and obviate the prospect of having to abandon casualties to the enemy.

155. Battle Group Medical Platoon

Those doctrinal principles outlined in paragraphs 149 through 152 must be adhered to in the operations of a battle group medical platoon. Since time ordinarily is a complicating factor and casualties may be heavy, medical support to covering forces, as well as the main body, must be provided. Personnel of the battle group medical platoon must be attached to those elements remaining in contact with the enemy. The rest of the platoon moves to the rear as indicated in the order for withdrawal. In the initial stages of the withdrawal, between the time of breaking contact and the formation of the march columns, the general principles of unit medical service are those of the approach march. The great difference lies in the influences of the time factor and the direction of the movement. Recovery of casualties from the field and collection must be combined. Aid stations should not be established during the movement. Wounded are given medical treatment and taken directly to the nearest axis of evacuation (routes for the rearward movement).

a. Especially in daylight withdrawals and night withdrawals under pressure, it will be absolutely necessary to reinforce the battle group medical platoon. The dispersion of elements due to the extended order with a probable heavy casualty rate and the lack of time make it impossible for the medical platoon to accomplish its mission without assistance. These reinforcements may be had from two sources. Litter bearers of the clearing company may be employed. Since reinforcements from medical units may prove to be inadequate in the initial stages of any withdrawal, litters should be issued to the infantry personnel who must assist in the evacuation of their own casualties under these circumstances. This action on the part of the infantry normally will not interfere with their combat functions since, during movement, they are not usually engaged in a fire fight. When movement must be suspended for this purpose, their combat function becomes paramount. In

daylight withdrawals, and night withdrawals under pressure, no detachments are left in contact with the enemy. In voluntary night withdrawals, a "skeleton" aid station and reinforced evacuation means remain with the detachment in contact with the enemy and withdraw with them when necessary.

b. When march columns are formed, unit medical service becomes that of the march.

c. Casualties must be transferred to division ambulances at predesignated march collecting points. These march collecting points are generally kept abreast of the withdrawing combat elements. Wounded are brought to these points, loaded in ambulances, and evacuated. The ambulance loading posts established at these march collecting points are almost indispensable in the early stages of a withdrawal from action. If, however, it is impossible to establish them, casualties must be carried to the assembly areas. The majority of walking wounded will require assistance because they will be unable to main the pace of the able-bodied.

d. If aircraft are available for night evacuation, they should be used to the maximum amount practicable.

e. In a daylight withdrawal, the aid station personnel may split and move as two separate groups. If it becomes necessary for the troops to infiltrate to the rear, each group of aid station personnel should be provided with whatever means are available with which they can carry their casualties to the rear.

156. Division Medical Battalion

a. Ambulances of the division medical battalion may be attached to covering forces. These ambulances normally will be used to evacuate patients from the covering elements direct to the clearing station(s) from which all patients must be evacuated as promptly as possible. Division ambulances normally evacuate patients from the battle group aid stations, assembly areas, or predesignated collecting points to the clearing stations.

b. During the initial stages of withdrawal, the clearing stations already in operation will serve the division while others are being established in the rear. Every effort must be made to have all these stations evacuated promptly and kept relatively free of patients by supporing field army medical units. When the progress of the operation indicates, the next succeeding station to the rear is opened. This should be accomplished in sufficient time to allow the forward station to be closed before it is in real danger of being overrun.

157. Medical Sections of Separate Battalions

These usually operate in a normal manner. Suitable augmentation of the medical sections, as may be required, is made to the elements of artillery, engineers, and other combat elements which are a part of the covering force.

158. Medical Service of Rearward Positions

The medical service established for the rearward position of the withdrawing force will depend upon the plan of the commander. If resistance is to be renewed on this position, medical service of the defense is reestablished for the division. If, however, this position is merely an assembly position from which retirement is to begin, then medical service will be planned for the retirement as outlined in paragraphs 159 through 161.

Section III. RETIREMENT

159. General

Retirement is a retrograde movement in which a force seeks to put extended distance between it and the enemy, to reduce friendly supporting distance, to occupy more favorable terrain, to conform to dispositions of a larger command, or to permit employment in another sector. A withdrawal from action may precede a retirement. A retirement cannot begin when a force is in contact with the enemy.

160. Considerations Affecting Medical Service

a. In retirements following a withdrawal, the most important considerations are to place distance, obstacles, and security forces between the main body and the enemy, and to regain freedom of action for the main body. Medical service will have to be provided in order to meet the requirements of all elements executing the movement.

b. When the retirement is short, if enemy pressure permits and the covering force for the withdrawal is sufficient for the protection of the movement, the medical service operation is that of a withdrawal from action. When the retirement is long and a rear guard is employed, medical service on the march will be required for march columns comprising the main body of the marching elements, for the action of the rear guard, and for the trains in the early movement.

161. Medical Service Operations

a. Medical units not required to support the rear guard action,

or to perform either normal or forced march collection, will move with the preliminary force, or the trains, ahead of the main body to the bivouac area or the new station, whichever is appropriate.

b. Ambulance and collecting elements march between the main body and the rear guard prepared to support the latter's action. The support of the rear guard action is similar to that of a delaying action (pars. 162–164).

c. If authority for ambulance movements to the rear cannot be secured, then additional ambulances will be required to transport the wounded until they can be moved to a clearing station at the next halt.

d. Medical support of the flank guards conforms in general to that indicated for rear guards. The medical service of all security detachments depends upon the nature of their employment which may take the form of defense, delaying action, or offense. The medical support given such security detachments must be generous and conform to the size, mission, and mobility of that force. Reinforcement of medical service transportation and evacuation means is generally required.

Section IV. DELAYING ACTION

162. General

A delaying action is conducted to trade space for time and inflict maximum casualties on the enemy without becoming defensively engaged. A delaying action may be forced or voluntary, however, the real purpose is to resume the offensive at a time and place more favorable to our forces.

163. Medical Service Operations

a. In a delaying action, unit medical service operates in a normal manner, however, the extended forward areas may require a subdivision of aid stations. During the movement to the rear, unit medical service is continuous and every effort is made to expedite evacuation of casualties.

b. Evacuation elements are assigned to areas corresponding with those of the units which they support. Ambulance evacuation must be used to the limit of practicability.

c. Division ambulance operations are normal. However, it may be necessary to attach ambulances to combat units occupying isolated positions in proximity to the enemy forces. The division aviation company is capable of assisting in the evacuation of

critical casualties from the battlefield and from battalion and battle group aid stations to the division clearing stations.

d. Other medical service operations are normal. Clearing stations will be located well to the rear, and when practicable, placed so that each can support two successive positions without displacement.

164. References

For general principles governing the organization and conduct of retrograde movements, see FM's 5–15, 5–20 series, 7–100, 17–100, and 100–5.

CHAPTER 10

MEDICAL SERVICE IN SPECIAL OPERATIONS

Section I. ATTACK OF RIVER LINES

165. General

a. In an operation involving crossing of a river, the actual crossing is a means, not the end, sought. The immediate purpose is to get across quickly and economically and to establish a bridgehead which will protect crossing for the remainder of the command.

b. Following the advance to a river line (preliminary phase), in the establishment of a bridgehead by a large force, there are three successive objectives on the enemy side of the river; first, a position which will eliminate effective direct small arms fire from the crossing front (phase I); second, a position which will eliminate ground-observed artillery fire from the crossing site(s) (phase II); and a third, a position which will eliminate sustained artillery fire from the crossing site(s) and will provide the necessary maneuver space for the command on the enemy side of the river (phase III).

c. Attainment of the first objective facilitates the crossing of succeeding troops in assault boats, by footbridges, and by troop and vehicle ferries. Attainment of the second objective, combined with local air superiority, normally will make possible the construction of pontoon bridges to cross the bulk of heavier loads. Attainment of the third objective, combined with local air superiority, gives uninterrupted use of crossing sites over the river, permits the protected maneuver of troops in furtherance of their mission, and facilitates the accumulation of supplies on the enemy side of the river.

166. Considerations Influencing Medical Service

a. Medical service in the attack of river lines, while conforming in general to medical doctrines of offensive operations, presents certain special problems incident to ferrying and bridging operations. The medical service must concern itself with the support of the combat troops during the advance to the river line (preliminary phase), during the crossing of the river and the

capture of the initial objective (phase I), during the operations incident to the seizure of the intermediate objective (phase II), and during the attack to gain the bridgehead (phase III).

b. The medical problem is further complicated by the necessity for suporting feints and demonstrations, if any, and the support of forces involved at the main crossing sites which may be located some distances apart. Rigid economy in the commitment of medical elements is practiced to insure adequate support for the successful crossing, usually the principal area of casualty density in the operation.

c. The collection and evacuation of casualties are unfavorably influenced by darkness and probable confusion if the attack is carried out at night. Medical aid-evacuation teams and litter bearers will depend primarily on information provided by company aid men and the combat troops to locate the wounded. A second search of the battle area at first light is required to locate wounded who may have been overlooked in the darkness.

167. Medical Service, Preliminary Phase

There are relatively few casualties during this phase as long as secrecy in movement to the river line is maintained. March collecting posts may or may not be established along the main approaches to the crossing sites for the care of the wounded, sick, and injured.

168. Medical Service, Phase I

At the end of the preliminary phase, battle groups aid and division clearing stations are established to render normal support in the area of each crossing. Litter bearers from each clearing platoon may be employed near each crossing site. Ambulances are advanced as near to the river as possible. Locations for ambulances require defilade from direct enemy fire.

a. Battle group medical platoons furnish close support to their respective battle groups. Company aid men accompany their respective companies in the crossing. Medical aid-evacuation teams, organic to the medical platoons, cross in succeeding waves. These teams and the battle group aid stations establish support on the far bank as soon as the situation permits. Initially, casualties are placed on returning craft for evacuation to the near bank. When helicopters are employed as a means of air landing assault troops, the returning aircraft may be utilized to furnish rapid evacuation of casualties to medical installations on the near bank. After the establishment of the battle group aid stations on the far

bank, casualties are held at the aid station until transportation to the near bank is available.

b. Litter bearers of the clearing platoons remove the casualties from returning craft and carry them to ambulances of the ambulance company, or to a designated collecting point for further movement to the clearing station.

c. Air ambulance elements provide air evacuation of casualties from the far bank as soon as tactical considerations permit. Normally, this is after the battle group aid station has been located on the far bank.

d. At the end of phase I, the battle group aid station will have been established on or beyond the far bank. Casualties are then evacuated from the aid station by both air and amphibious means.

169. Medical Service, Phase II

a. During this phase, evacuation elements of the division medical battalion will effect evacuation on both banks of the river until the clearing stations have been established on the far bank. The clearing stations may displace forward to a point nearer the river during this phase.

b. When phase II is completed the clearing station should be moved forward to a position either close to the near bank or across to the far bank as conditions dictate. A relatively high priority is granted to the division medical battalion elements for movement across the established bridges. In the absence of functioning bridges, movement of clearing elements by surface craft may be authorized.

170. Medical Service, Phase III

During this final phase, medical units are moved across the river as rapidly as possible and resume normal operating conditions on the far bank. Clearing stations may be called upon to care for large numbers of casualties destined for movement out of the division area, pending the establishment of ample bridge facilities and the resumption of normal evacuation by higher command.

Section II. DEFENSE AGAINST RIVER CROSSINGS

171. General

An unfordable river may be employed as an obstacle in front of a defensive or delaying position or as an aid to a defensive-offensive action which seeks to strike the enemy while his forces

are astride the river. However, the enemy must be forced to make a direct attack or a river line loses much of its value as an obstacle. If successful counteroffensive action is to be followed by exploitation, the river line then becomes an obstacle to our own troops. In any defense of a river line, covering forces remain on the enemy side of the river and maintain contact with the enemy, delay his advance, and determine his assembly positions and probable crossing sites. When forced to retire, these advanced elements withdraw across the river. Measures are taken to destroy crossings after the last elements have crossed or at such time as may be necessary to prevent such crossings from being seized by the enemy.

172. Considerations Affecting Medical Service

There are no special considerations of a defense of river lines that have not been previously discussed (ch. 8). All medical units must have prior information as to the type of action that is to be utilized by command in order that plans may be so constructed as to provide adequate medical service for the type of defense which may be employed.

173. Medical Service

Certain factors are common in planning a medical service for any type of defense.

a. Adequate medical service must be provided for covering forces located on the enemy side of the river.

b. Collection of casualties from the battlefield and aid stations, and their subsequent evacuation to the clearing station, may be impeded or halted for considerable periods of time by the violence of the hostile attack. Ambulance elements are placed well forward to expedite casualty evacuation during lulls in combat. A reserve of evacuation elements capable of reacting to a changing situation must be maintained.

c. In a defensive-offensive action, medical reserves must be maintained in equal proportion to combat reserves in order to provide sufficient medical support for the planned offensive phase. During the latter phase of such action, the medical service will assume the pattern of medical service in the defense, or delay upon successive positions, as appropriate.

d. In retrograde movements, when the river line is to be held as a defensive or a delaying position, the medical service assumes the pattern of medical service in the defense, or delay upon successive positions, as appropriate.

Section III. OTHER SPECIAL OPERATIONS

174. Night Operations

Combat at night is generally characterized by a decrease of effectiveness of aimed fire; by a corresponding increase in the importance of close combat; by the fire of fixed weapons laid on definite targets or areas by day; and by difficulty in movement, in control of combat elements, and in direction, contact, and communication. These factors require that the night attack be characterized by simplicity. The scheme of maneuver, fire support plan, and command and control measures are made as simple as possible and are clearly specified with the utmost precision.

175. Medical Service of Night Operations

The problems of locating, collecting, and evacuating casualties during night operations are, by comparison with daylight operations, relatively difficult. Movement over unfamiliar terrain during hours of darkness will reduce the speed with which evacuation elements can perform. Locating casualties under these conditions will require a thorough systematic search of the forward areas.

a. Medical aid-evacuation teams should be deployed in direct support of each infantry company engaged in the attack. A collecting point or company aid post should be established near the company command post and utilized as a control and transfer point between litter and frontline ambulance means. These means may be augmented by litter bearer squads provided by the division medical battalion.

b. Prior to the start of the attack, the battle group aid station should be located close to the line of departure and along natural lines of drift. Locations of additional aid station sites for the support of the attack, as it progresses, should be reconnoitered on the map and on the ground whenever possible during daylight hours preceding the attack. Information regarding the future sites must be disseminated to all command and medical elements concerned prior to the start of the operation. Notification of the actual moves must likewise be disseminated. The aid station must move forward by leapfrogging in the same manner as in other offensive type operations.

176. Mountain Operations

Mountain warfare is characterized primarily by the difficulties which terrain offers to movement. The inaccessability of certain regions restricts areas in which troops are able to operate. The restricted nature of certain areas, such as narrow valleys and

defiles, limits the strength of forces which can be maintained and moved therein. Because of inadequate road nets, the existing roads in the terrain enhance their military value and add importance to terrain features which dominate them. These terrain features consist of heights dominating roads, passes permitting movement through mountains, and roads and railroads in rear areas required for logistic support. Mountain operations are primarily limited because of the difficulties in logistic support. Both World Wars and the Korean Conflict demonstrated that prolonged fighting on a large scale could take place in mountainous terrain.

177. Medical Service in Mountain Operations

a. The terrain and the situation will require improvisation, but the general principles of medical service apply.

b. Until they can be brought to motor roads, patients will have to be evacuated by variously improvised means, such as by cacolet, travois, or aerial tramway. Ordinary canvas litters normally do not suffice in evacuation across streams and gulleys or down precipitous cliffs; basket litters should be used under these conditions. Medical aid-evacuation teams will necessarily require augmentation in order to traverse difficult terrain.

c. Every effort should be made to utilize animals native to the area for the augmentation of evacuation means.

178. Operations in Snow and Extreme Cold

Military operations conducted under conditions of snow and extreme cold follow the same basic principles as do operations under other conditions. They differ primarily in the tactical and logistical limitations imposed by adverse climatic conditions and in special types of equipment, training, and procedures necessary to overcome these limitations.

179. Medical Service in Operations in Snow and Extreme Cold

Cold hastens the progress of shock and lessens the chances of recovery if the patient is exposed for any extended length of time. Evacuation by litter is markedly hindered under conditions of cold and deep snow, and as a result, litter bearers are subject to excessive fatigue. In order to prevent a large percentage of deaths among patients in extremely cold weather, the following principles must be observed:

a. Prompt collection of casualties from the battlefield and their rapid evacuation to locations where they can be kept warm.

b. Augmentation of collecting elements of both unit and division medical service.

c. Provision of inclosed transportation with adequate heating devices for medical units.

d. Provision of heated shelters at frequent intervals along the route of evacuation, at which warm drinks are available.

e. Readily available air transportation for the rapid evacuation of serious cases.

f. Provision of special snow-traversing type vehicles for medical surface evacuation.

180. Jungle Operations

In jungle operations the soldier fights two enemies, man and nature. The elimination of nature as an enemy and the use of the jungle itself as an ally are fully as important as the elimination of the human enemy. All troops should have a thorough knowledge of the fundamentals of personal hygiene, preventive medicine, and self-protection against poisonous plants, noxious insects, and venomous reptiles if fighting efficiency is to be maintained in the adverse climate characteristic of tropical jungles.

a. In jungle operations tactical conditions appear more adverse than is really the case, casualties are exaggerated, and rumors prevail, leading to a feeling of insecurity among personnel. Therefore, morale is a highly important factor.

b. As a result of the terrain, excessive vegetation, and swamps, fatigue of troops is increased during operations.

c. Hygiene and sanitation are of paramount importance in the prevention of disease. Measures must be instituted early in the control of insects capable of transmitting disease.

181. Medical Service in Jungle Operations

a. Equipment. Equipment prescribed by TOE for units concerned with evacuation are in many instances not suitable for operation under jungle conditions. The use of the standard ambulance is seldom practicable on jungle trails, in swamps, and on unimproved muddy roads. Therefore, tracked and/or amphibious vehicles must be used to augment medical transportation and surface evacuation means.

b. Evacuation. Every type of transportation by water or land should be used for transporting casualties to the rear, whether or not it is organic to the medical service. Normally, evacuation routes follow supply routes which are adequately protected against enemy action.

(1) Boats, rafts, and barges are used when practicable.

(2) Litter bearers who have been well conditioned may carry a litter for a distance of 400 to 600 yards over jungle terrain but are unable to repeat this performance without appreciable rest. Therefore, it is necessary in many instances to augment litter bearer elements. Natives often can be advantageously employed in this manner.

(3) No one method of evacuation will suffice. A combination of all available means of collection and transportation of casualties must be utilized.

182. Desert Operations

The principal characteristics of the desert affecting military operations are lack of water, absence of vegetation, large areas of loose sand, extreme temperature ranges, and brilliant sunlight. Military operations in the desert, therefore, must be governed by the following principles:

a. Restricted water consumption by all personnel and the conservation of water for all purposes are mandatory.

b. Large areas of loose sand will increase immeasurably the difficulties of transportation.

c. The extreme temperature range during a 24-hour period requires all individuals to be provided clothing not only for the extreme heat of the day, but for the severely cold nights.

d. Bright sunlight and resultant eye difficulties necessitate the provision of proper eye protection for all personnel.

e. Because of the aforementioned conditions existing in the desert, combat on such terrain is marked by the following characteristics:

(1) Greater mobility is possible because of the absence of natural tactical obstacles. Therefore, movement, all-around protection, and the maximum use of motor transportation are emphasized.

(2) Scarcity of roads and railways increases logistical difficulties, thereby limiting the radius of action of motorized forces.

(3) The absence of natural concealment is of importance in dispersion and artificial camouflage of tactical units.

(4) The absence of recognizable terrain features reduces the value of maps and necessitates accurate use of compass, sun, and stars in navigation, thereby increasing the difficulties of controlling tactical units.

183. Medical Service in Desert Operations

Evacuation and treatment of casualties in the desert present special difficulties as a result of the large areas over which action is distributed. The presence of wounded in highly mobile units will not only restrict the action of the units, but endanger their safety. In order to evacuate these units of their casualties, augmentation of the organic transportation of medical units will be necessary. Air evacuation is particularly valuable for the more serious cases.

184. Air-Landed Operations

All combat elements of the infantry division can participate in air-landed operations. Using improved Air Force assault aircraft or Army aircraft, companies and battle groups can be air-landed immediately on or very near their objective in either joint or unilateral airborne assault operations. While this may be presently considered a special operation because of the limited availability of aircraft, much greater emphasis is being placed on the air transportability of all units to capitalize on the speed and mobility of the air vehicle. In the near future, the air-landed operation for the infantry division will more often approach the normal rather than the special type of operation.

185. Medical Service in Air-Landed Operations

The same general principles and procedures governing medical service operations for the airborne division which can parachute or be air-landed into an objective area are valid for the infantry division which will be air-landed on an objective area (ch. 11).

186. References

Further information regarding medical service in special operations under nuclear warfare conditions is included in chapter 22. For principles governing special operations, see FM's 7–100, 17–100, 31–8, 31–25, 31–60, 31–70, 31–72, 57–35, 57–40, 57–100, and 72–20.

CHAPTER 11

MEDICAL SERVICE IN AIRBORNE DIVISION

187. General

The airborne division is designed as a specialized unit with primary emphasis upon its capability to perform airborne missions in an airborne assault role. Entry into combat is by air-landed or parachute means. Although organized for short duration operations, it is capable of sustained combat when properly augmented.

188. General Considerations of Medical Service in Airborne Operations

a. General. The same general principles governing the operation of the combat medical service of other combat army units also apply to that of airborne units. Airborne medical units must have mobility equal to that of the units supported. They accompany the supported troops at all times, and they provide prompt and efficient medical care and evacuation despite the inherent difficulties of medical support in the airborne assault.

(1) In short duration operations, a very short-term evacuation policy is normal, usually 48 to 72 hours. Air transportable casualties are evacuated from the objective area by air if aircraft can land therein. When air evacuation is possible, necessary medical installations are located in proximity to suitable air-landing facilities. When aircraft cannot land for purposes of evacuation, additional medical units may be required.

(2) In long duration operations, circumstances, such as the establishment of medical facilities, may permit a lengthening of the evacuation policy as the operation progresses. A firm evacuation policy for a long period of time cannot be established in advance; it will be modified as circumstances either permit or require.

(3) An airhead is roughly circular with service elements normally located near the center. Lines of evacuation are normally short.

(4) Early entry of evacuation and treatment elements of the division medical service unit into the objective area is

essential, in that unit medical service treatment and patient holding capabilities are limited.

(5) Careful sorting of casualties in all airborne medical installations is essential. Maximum effort is made to return to duty those patients capable of performing duty for the period of division operations.

(6) Due to the nature of airborne operations, it will be necessary for the division medical service unit to provide more extensive and elaborate treatment to nontransportable cases than is provided by division medical service units of other than an airborne division.

(7) Evacuation of certain of the medical installations will be nonexistent during the early phase of an airborne assault, and casualties will accumulate at these points. The total number of casualties within the area will build up until either the ground link-up is made or evacuation by air begins.

b. Individual Training. The airborne soldier must be highly trained in first aid, because he may have to treat himself or his comrades in those instances where he lands in an area in which unit medical service is not readily available. The airborne medical soldier must be highly skilled in emergency medical treatment, for he may be the only medical help available for islolated groups.

189. Organization of Medical Service in Airborne Division

The medical service of the airborne division consists of the unit level medical service supporting the airborne battle groups, command and control battalion, division artillery, airborne engineer battalion, and the division level medical service provided by the division medical company. The organization of unit medical service in the airborne battle group and that of the division medical service in the division medical company is detailed in FM 57–21, Headquarters and Headquarters Company, Airborne Division, Battle Group, and in FM 57–100, Airborne Division.

190. Unit Medical Service

a. Unit level medical service is provided by organic medical platoons of the battle groups and engineer battalion and organic medical sections of the command and control battalion and division artillery. Medical service is provided on an area basis to those units which do not have organic medical elements, e.g., the signal battalion and units of the support group; or those units

which are widely dispersed, e.g., the cavalry troop of the command and control battalion.

b. The elements of division artillery and the engineer battalion are normally widely dispersed in the airhead. In such circumstances, the dispersed elements receive medical service from the nearest medical facility in the area where located.

c. The aid stations of units of the division are located where they can best support the units and normally are located in the vicinity of their respective headquarters and headquarters company (battery). The command and control battalion aid station is located near the division main command post.

d. Unit medical service, includes the emergency medical treatment of casualties; collection and evacuation of casualties; establishing and operation of aid station(s) for the reception, sorting, and temporary treatment of casualties; operation of a dispensary for the temporary treatment and care of the sick and injured; technical supervision of training of nonmedical troops in such subjects as first aid and personal hygiene; and technical supervision of sanitation, to include insect and rodent control and communicable disease control within the unit area.

191. Division Medical Service

Division medical service is comprised of the division surgeon, his staff, and the division medical company.

192. Division Surgeon

The senior officer of the Medical Corps assigned to an airborne division is usually the division surgeon. As division surgeon, he is a division special staff officer and a member of the division logistic staff operating under the supervision of the support group commander. The division surgeon is responsible for the technical supervision of medical service of the division at all echelons, and exercises direct operational control of the division medical company when so directed by the commander. He keeps the surgeon and dental surgeon of the next higher command informed as to the medical and dental situation, respectively, within the division. The duties and responsibilities of the division surgeon are those as outlined in FM 101–5 and FM 57–100. Inasmuch as no preventive medicine officer is assigned to the staff of the division surgeon, he must personally assume the duties and functions as outlined in paragraph 63*a*(2).

193. Medical Supply in Airborne Operations

Delivery of all supplies to the objective area is by air. Care

must be exercised that no critical items of medical supply are omitted, for resupply may be delayed. Allowance must be made for probable losses of supplies and equipment in delivery or those carried in aircraft that do not arrive at their destination. Critical items must be duplicated and loaded on separate aircraft. Aircraft requirements and aircraft availability must be considered in medical supply planning for airborne operations. Phases of supply are accompanying supply, followup supply, and routine supply. A large quantity of items normally exchanged, particularly litters and splints, are normally delivered only in the followup supply phase. For details, see FM 57–30 and FM 57–100.

CHAPTER 12
MEDICAL SERVICE IN ARMORED DIVISION

Section I. GENERAL

194. General

The armored division normally engages in combat operations by utilizing combat commands. (For a discussion of the roles, missions, capabilities, limitation and concept of organization for combat of the armored division, see FM 17–100.) The primary concern of the armored division medical service in combat is to provide close and continuous medical support to these combat commands, which are characterized by mobility, rapidity of movement, and extended areas of operation. The rendition of an adequate medical service must be based upon these characteristics.

195. Organization of Medical Service in Armored Division

Medical service in the armored division consists of unit medical service and division medical service.

a. Unit. The organization of the unit medical service in the armored division is effected by providing each element the size of a battalion/squadron (except the ordnance, signal, and medical battalions) or larger and major command elements with a medical section. Organic medical sections of combat and combat support units contain elements having common functions.

(1) *Company aid men.* These individuals provide emergency medical treatment to casualties on the battlefield. Because of the speed and wide dispersion of armored elements in combat, company aid men are normally provided vehicles in order to maintain continuous medical support of the combat troops. They are an essential element of a medical aid-evacuation team which is the primary means by which direct medical support is provided company level combat and combat support units. In some instances medical service personnel are able to reach a tank or other armored vehicle immediately after it becomes disabled. Therefore, they must be trained in the removal of seriously injured individuals from all types

of vehicles. More often, however, medical service personnel are not immediately available, and all personnel must be trained to evacuate fellow crew members who are so injured that they are unable to escape without assistance. It is mandatory that all personnel be trained and instructed in the major elements of first aid.

(2) *Battalion/squadron aid stations.* At these stations patients are given emergency medical treatment, sorted, and either returned to duty or evacuated to the rear. These aid stations must be mobile because of the rapidity of movement and dispersion in width and depth of the combat elements.

b. Division. Division medical service is provided by the armored division medical battalion in the form of medical evacuation and treatment of patients evacuated from the battalion/squadron aid stations.

Section II. UNIT MEDICAL SERVICE IN ARMORED DIVISION

196. General

a. Unit medical service is provided an armored division by battalion/squadron medical sections each operating under the operational control of a battalion/squadron surgeon. These battalion/squadron medical sections effect emergency medical treatment on the battlefield and the movement of the wounded from the battlefield to the battalion/squadron aid station for sorting (triage), additional treatment (returning to duty those who are physically fit), and evacuation, if necessary.

b. Medical sections are organic to each battalion/squadron of the armored division except the ordnance signal, medical battalions. Medical service is provided the armored division signal battalion and armored division ordnance battalion on an area basis. Unit medical service is provided the armored division headquarters and armored division artillery headquarters personnel by medical sections organic to those headquarters.

c. Unit medical service includes emergency medical treatment of casualties; collection and evacuation of casualties; establishing and operation of aid station(s) for the reception, sorting, and temporary treatment of casualties; the operation of a dispensary for the temporary treatment and care of the sick and injured of the battalion/squadron; the technical supervision of training of nonmedical troops in subjects as first aid and personal hygiene; and the technical supervision of sanitation, to include insect and

rodent control and communicable disease control within the battalion/squadron area.

197. The Battalion/Squadron Surgeon

a. The battalion/squadron surgeon is a Medical Corps officer who is a member of the battalion/squadron headquarters as a staff officer and he also has operational control of the medical section and any attached medical units/elements. He advises the commander and his staff in matters pertaining to the health of the command. In coordination with the battalion/squadron S3, he exercises technical supervision over medical training in the battalion/squadron, including training in first aid, sanitation, and hygiene. He coordinates closely with the battalion/squadron S4 on plans for personnel evacuation, sanitation, and the location of the battalion/squadron aid station. He plans and supervises all battalion/squadron medical service.

b. The specific duties of the battalion/squadron surgeon are to—

(1) Prepare a battalion/squadron medical plan, based on the tactical situation and the plans of the commander, and coordinate this plan with the battalion/squadron S4 to insure that it is in consonance with overall logistical plan.

(2) Recommend a location for the battalion/squadron aid station and control its operations in the care and treatment of patients.

(3) Plan for and supervise the evacuation of casualties to the battalion/squadron aid station and, when required, from the aid station to supporting medical installations.

(4) Request aircraft for and coordinate aeromedical evacuation of battalion/squadron casualties, when required.

(5) Keep the battalion/squadron commander, the combat command surgeon, and other interested staff sections informed of the medical situation within the battalion/squadron.

(6) Make timely requests to the supporting division medical unit for medical supplies, and, when necessary, additional medical support.

(7) Supervise preparation of reports on, and custody of, the records of sick and wounded.

(8) Supervise the training of the medical section.

198. Medical Treatment and Evacuation

Emergency medical treatment is furnished by medical aid-evacuation teams that are attached to and remain with individual com-

panies. Slightly wounded may be directed to proceed, either by walking or by nonmedical vehicles, to battalion/squadron aid stations for further necessary treatment. Seriously wounded will be evacuated to battalion/squadron aid stations by armored wheeled or tracked ambulances of the battalion/squadron medical section. The battalion/squadron aid station is located where it can best support the battalion/squadron. This may require dividing the battalion/squadron aid station into more than one section so that it can be advanced or withdrawn either by echeloning or by leapfrogging. No more of the battalion/squadron aid station is established at one time than is required by the situation, so that the aid station may remain mobile as long as possible. All patients are sorted at the battalion/squadron aid station. Personnel requiring minor treatment are returned to duty as rapidly as possible. If the situation permits, patients who will be able to return to duty within a short time, especially emotionally disturbed patients, are evacuated no farther to the rear but are retained in or near the battalion/squadron aid station and are returned to duty from there. Those patients who must be evacuated for further treatment are given the care and treatment that will prepare them for evacuation by either air or ground means. Patients are normally evacuated from battalion/squadron aid stations by ambulances from the armored division medical battalion to division clearing stations. However, if weather and other factors permit, evacuation may be by aircraft from a supporting field army air ambulance unit. Supply trucks and aircraft will be used in medical evacuation when necessary to augment the normal medical evacuation facilities.

199. Augmentation

The augmentation of unit medical service, when required is normally provided from personnel, vehicles, and equipment of the armored division medical battalion.

200. Area Type Medical Service

A unit medical section furnishes necessary medical support to all personnel located within its tactical area of responsibility. As an example, personnel of armored division engineer or armored division armor battalions, in support of armored infantry operations and separated from their organic medical sections, will receive medical treatment from the aid station of an armored infantry battalion in whose area they are operating. It is normal for aid men (or medical aid-evacuation teams, as appropriate)

to be attached to and remain with a company-size unit even when this unit is detached from its parent battalion/squadron.

201. Armored Division Armor Battalions

The medical section of an armored division armor battalion is mobile and is equipped to operate over an extended area of action. This section includes an aid station group, company aid men, and ambulance drivers. In the armor battalion, a combination has been made of evacuation means and company aid service. A medical aid-evacuation team is composed of an ambulance driver and company aid man and a wheeled ambulance. These medical aid-evacuation teams are attached in combat to the tank companies on the basis of one team per tank company. The remaining medical aid-evacuation team may be utilized for any one of the following requirements:

a. Reinforcement of medical support rendered to a tank company.

b. Evacuation of casualties from an intermediate collecting point.

c. Retention at the battalion on an "on-call" basis.

d. When necessary, evacuate casualties to a division clearing station.

The medical aid-evacuation teams carry with them sufficient medical supplies and equipment to enable them to perform their duties over long periods of time. Normally, the medical aid-evacuation teams follow closely behind the supported tank companies and locate casualties as they occur. When a tank becomes disabled or indicates the presence of a casualty within the tank, the company aid man and the ambulance driver, with the assistance of the tank crew, evacuate the casualty from the tank and administer emergency medical treatment when the combat situation allows such practice. Under conditions of heavy fire, first aid and/or self-aid performed by the surviving members of the tank crew must suffice until evacuation teams can be made available. These casualties may be evacuated to the battalion aid station by the medical aid-evacuation team in their vehicle. In a rapidly moving situation, casualties may be evacuated to a predesignated casualty collecting point along the axis of advance. The patients are picked up later by unit transportation, personnel of the aid station, or by an ambulance from the ambulance company of the armored division medical battalion. The armored tracked ambulances organic to the battalion medical section are used for evacuating casualties

under battle conditions which preclude the use of frontline ambulances.

202. Armored Infantry Battalions

Company aid men are attached to the rifle companies on the basis of one per rifle platoon. In addition, a medical aid-evacuation team consisting of an ambulance driver with a wheeled ambulance and a company aid man, is allocated on the basis of one per rifle company. Armored tracked ambulances are also organic to the medical section for use in a manner similar to that of the armored division armor battalion medical section.

203. Armored Cavalry Squadron

In this squadron, troop aid men are attached to the reconnaissance troops on the basis of one aid man to each of the five medical aid-evacuation teams; and one aid man to each of the armored tracked ambulances. The three aid men employed with the armored tracked ambulances may also be utilized in support of the four reconnaissance troops as the surgeon may direct. Evacuation of casualties to the squadron aid station is by wheeled ambulance aid-evacuation teams, or by armored tracked ambulances of the squadron medical section. Normally, armored tracked ambulances are used for the evacuation of casualties under combat conditions which preclude the use of wheeled ambulances. The elements of this squadron normally operate over an extended area. Under these conditions, evacuation is to the nearest battalion/squadron aid station.

204. Armored Division Artillery

Unit medical service is furnished to the division artillery of the armored division by medical sections organic to the headquarters and headquarters batteries of each of its major components. A Medical Corps officer is assigned to the armored division artillery headquarters as the division artillery surgeon. In this capacity he serves as a special staff officer, coordinating and supervising the medical service throughout the armored division artillery. In addition, he has operational control of the medical section of the headquarters and headquarters battery, armored division artillery, which establishes and operates an aid station to serve the personnel of division artillery headquarters. The medical sections organic to each of the artillery battalions establish and operate an aid station for each of their respective battalions and also provide battery aid men on the basis of one to each firing battery and to the service battery of each battalion. Each of these medical

sections is provided with a wheeled ambulance for use in evacuating casualties.

205. Armored Division Engineer Battalion

Company aid men are attached in combat to the companies of the battalion according to the anticipated need for their services. Evacuation of casualties is by wheeled ambulances. Normally, an ambulance driver and an aid man are assigned to each ambulance. An aid station group operates the battalion aid station. When the armored division engineer battalion is committed to action as an armored infantry battalion, the medical section should be augmented with medical aid-evacuation teams.

206. Armored Division Headquarters and Headquarters Company

The medical section organic to this company operates an aid station at the division's main command post and provides unit level medical service for the troops located at that point.

207. Armored Division Quartermaster Battalion

The medical section organic to this battalion operates an aid station in the vicinity of the battalion command post and provides unit level medical service for the battalion at that point.

Section III. DIVISION MEDICAL SERVICE

208. General

Armored division medical service consists of the division surgeon, his staff, and the armored division medical battalion.

209. Division Surgeon

The division surgeon is a special staff officer on the staff of the armored division commander, and all his duties and responsibilities are staff functions. Although assigned to the armored division medical battalion, he does not command this unit or any other medical unit in the division. The division surgeon is responsible to the armored division commander for all matter pertaining to the health of the command. This responsibility includes—

a. Advising the commander and staff on all medical matters.

b. Staff supervision of the—

(1) Medical Service within the division zone of action during combat operations to insure that all troops within the division's zone of action are provided adequate medical

service. The supervision of unit medical service of units attached to a combat command is exercised through the combat command surgeon.

(2) Training of all troops in medical subjects.

(3) Training of all medical personnel.

(4) Procurement and distribution of medical supplies and equipment and maintenance of medical equipment.

(5) Physical and mental examinations of all personnel.

c. Sanitary inspections and reports.

d. Reports of morbidity and mortality incident rates.

e. Technical operational control of the armored division medical battalion.

f. Keeping the surgeon and dental surgeon of the next higher command informed as to the medical and dental situation, respectively, within the division.

210. Division Surgeon's Office

The armored division surgeon's office consists of the commissioned and enlisted personnel provided to assist the division surgeon in his staff functions. Normally, the division surgeon's office is located at the division main command post. It is not to be confused with the command post of the armored division medical battalion. Although the personnel of the division surgeon's office are assigned to the armored division medical battalion, their normal functions are all performed in the division surgeon's office.

a. Personnel. The armored division surgeon is provided with administrative and technical assistants. Both the number and special qualifications of these assistants may be changed from time to time as the situation indicates (see current TOE's). The complement of assistants normally provided is listed below, and, while each is provided for a certain technical specialty, all are available for any duties that the division surgeon may require of them.

(1) *Assistant to division surgeon.* This officer is a general administrative assistant. The division surgeon may employ him either as an executive assistant or in liaison with other sections of the division headquarters.

(2) *Preventive medicine officer.* The armored division preventive medicine officer is primarily responsible directly to the division surgeon for making timely inspections and practical recommendations for the purpose of preventing all diseases (except mental diseases) and nonbattle in-

juries. When necessary, he may be sent to subordinate units of the armored division to make special investigations and recommendations. Under the supervision of the division surgeon, he conducts training in preventive medicine for all units in the armored division.

(3) *Division aviation medical officer.* The division aviation medical officer is assigned to the battalion headquarters but provides specialized medical facilities for Army aviation personnel of the division and advises the division surgeon on aviation medical matters. In addition, he functions as the aero-medical evacuation regulating officer, coordinating requests for emergency, on-call helicopter ambulance service from supporting units of the field army medical service, and coordinating supplemental air evacuation missions as to pickup and destination points with the operations section of the armored division aviation company.

(4) *Division psychiatrist.* The division psychiatrist functions on the staff of the division surgeon. He has a dual function. As a staff officer, he assists the surgeon in advising the commander on matters of policy and procedure which affect the mental health and morale of troops, and concurrently exercises technical supervision over the neuropsychiatric section within the clearing company.

(5) *Enlisted personnel.* A noncommissioned officer and other enlisted personnel are provided for clerical duties.

b. Location. Normally, the division surgeon is located at the division main command post.

211. Combat Command Surgeons

On the staff of the commander of each combat command in the armored division there is a Medical Corps officer assigned as the combat command surgeon. He is responsible to the commander for all matters pertaining to the medical service of the combat command. His specific duties and responsibilities, as they pertain to the combat command, are comparable to those of the division surgeon, as they pertain to the division; but the manner of execution differs in that he has no assistants. He calls on the division surgeon for the assistance of the division preventive medicine officer and the psychiatrist. Although the combat command surgeon is responsible only to his respective commander, his recommendations should conform to the overall policies of the division surgeon. The combat command surgeon is responsible for insuring that

all troops within the combat command's zone of action are provided with adequate unit medical service; and, to maintain contact with the division surgeon, to insure that continuity between unit and division medical service exists. He exercises operational control over medical units (elements) attached to the combat command from higher headquarters.

212. The Armored Division Medical Battalion

The armored division medical battalion provides division level medical service for the armored division. It is capable of—

a. Receiving, sorting, and providing temporary medical and surgical care for patients.

b. Evacuating patients from aid stations of the battalions and the cavalry squadron.

c. Providing ambulance support to units of the division not having organic ambulances.

d. Providing emergency dental service.

e. Providing medical supplies and second-echelon medical equipment maintenance for the division.

f. Establishing and operating a central psychiatric treatment facility for the division.

213. Organization

The armored division medical battalion is organized into a headquarters and headquarters detachment, an ambulance company, and a clearing company. This type organization is similar to that prescribed for the medical battalion of the infantry division with the exception that the ambulance and clearing companies of the armored division medical battalion each contains 4 platoons as contrasted to 3 in the medical battalion of the infantry division. See figure 8.

214. Employment

The clearing company and the ambulance company, minus those elements in support of the combat commands, normally operate in the division trains area with the headquarters and headquarters detachment, armored division medical battalion. Normally, one ambulance platoon and one clearing platoon are placed in direct support of a combat command. These platoons may be attached to a combat command when, because of distances involved and communication means are exceeded, the company commanders are un-

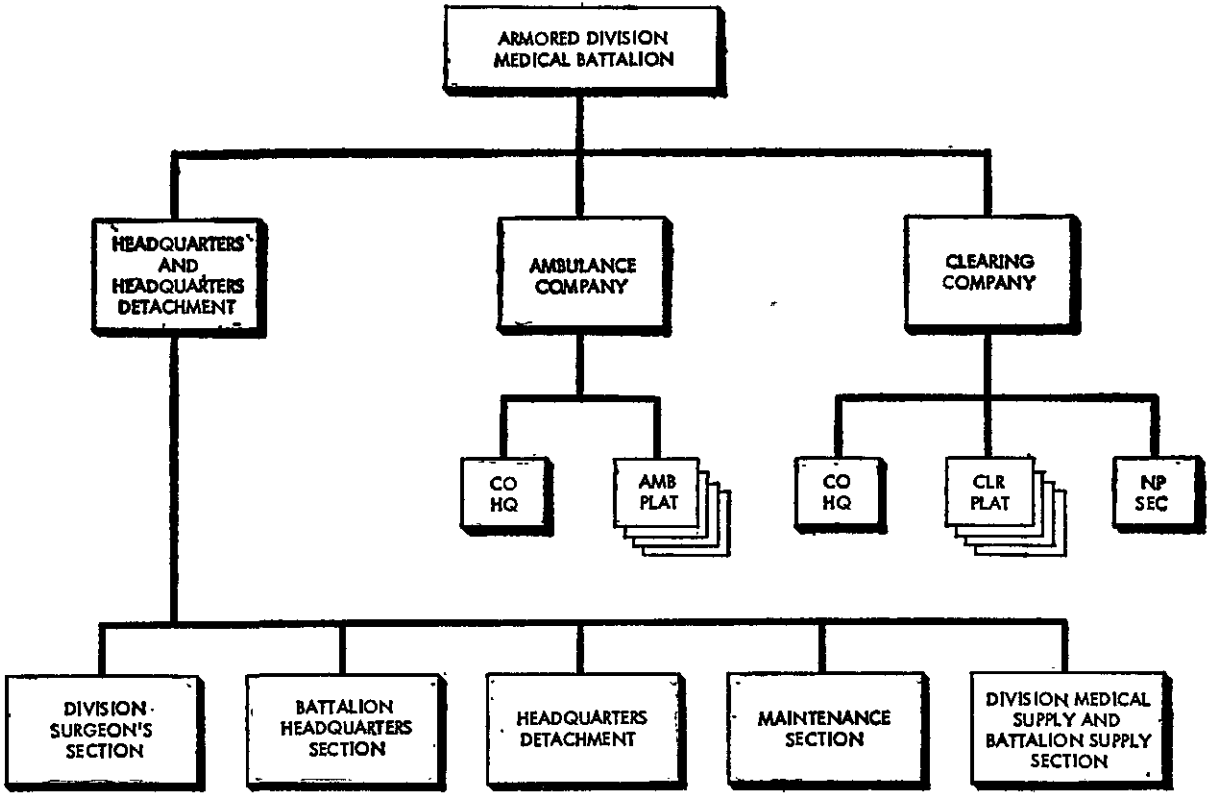


Figure 8. Organization chart of armored division medical battalion.

able to properly control and coordinate these elements in the performance of their assigned missions. Medical units attached to a combat command under these circumstances are placed under the operational control of the combat command surgeon.

215. Command

The armored division medical battalion commander, an officer of the Medical Corps, is responsible for the administration, training, and tactical employment of the battalion. He has the additional responsibility of supervising the technical activities of the several professional services within the battalion.

216. Staff

The battalion staff consists of the executive officer, an adjutant (S1), a combined operations officer (S3) and intelligence officer (S2), and a combined battalion supply officer (S4) and division medical supply officer. In addition, there is assigned *to* the battalion staff, but *for* function with the division surgeon's office, an aviation medical officer. For duties and functions refer to paragraph 210*a*(3).

217. Division Medical Supply and Maintenance of Medical Equipment

a. Responsibility. As indicated in paragraph 209, the armored division surgeon is responsible for staff supervision over the procurement and distribution of medical supplies and equipment. In order to assist the division surgeon in discharging this responsibility, the S4 of the division medical battalion has the additional function of division medical supply officer. As division medical supply officer, he is responsible for requisitioning medical supplies and equipment from Army medical supply agencies and for issuing them to the units in the division. He keeps the division surgeon informed as to the status of medical supplies and equipment.

b. Procurement and Issue. When the division is assembled in one location, medical units normally present informal requisitions to the headquarters detachment of the armored division medical battalion, and pick up required supplies there. In combat, a medical supply truck from headquarters detachment of the armored division medical battalion is normally stationed at each of the clearing stations, where medical supplies are issued as needed. The method of requisitioning and distributing medical supplies from these supply points is informal. Requests for medical sup-

plies from the forward medical units are sent back by the most expeditious means, and the supplies are dispatched forward by truck, ambulance, or aircraft.

c. Division Reserve of Medical Supplies. The division medical supply officer maintains, in the headquarters detachment of the armored division medical battalion, a reserve of basic medical supplies and equipment. The level of this reserve depends upon the tactical and administrative situations, and is in consonance with the supply levels established for the field army. The reserve medical supplies are stored in, and transported on, vehicles of the headquarters detachment of the armored division medical battalion. Normally, medical supplies for an armored division are procured in the same manner as prescribed for an infantry division in paragraph 69*e*.

d. Property Exchange. Whenever a patient is evacuated from one medical installation to another farther to the rear, it is necessary that medical items of equipment, such as blankets, litters, and splints, remain with the patient. To prevent depletion of these medical items in forward medical units, each receiving agency should immediately turn over to the transferring agency a like number of the same items of medical property received with the patient.

e. Maintenance of Medical Equipment. The maintenance section organic to the headquarters detachment, armored division medical battalion, provides limited maintenance of medical supplies and equipment. Items requiring maintenance beyond the capability of this section are evacuated to the rear, through medical service channels, for repair and/or replacement.

Section IV. AMBULANCE EVACUATION AND CLEARING

218. General

The functions of ambulance evacuation from unit aid stations and of clearing are performed within the armored division by the organic ambulance company and organic clearing company, respectively, of the armored division medical battalion. The organization of the armored division in combat requires that these functions be provided to support each combat command and the division trains. Normally, this is achieved by attaching or placing an ambulance platoon and a clearing platoon in support of each combat command and having similar type platoons operate in the division trains area.

219. Ambulance Company

a. General. The ambulance company of the armored division medical battalion is responsible for providing ambulance service within the division's zone of action. This company consists of a company headquarters and four ambulance platoons (fig. 8).

b. Mission. The primary mission of the ambulance company, armored division medical battalion, is to—

(1) Evacuate patients from the aid stations of the units within the division.

(2) Transport medical personnel, supplies, and equipment from one medical unit to another along the assigned routes of evacuation.

c. Employment. The ambulance company, armored division medical battalion, is normally employed in the following manner:

(1) Each of the three combat commands is supported by an ambulance platoon which evacuates patients from all units within the respective combat command's zone of action to a clearing station or, in an emergency, to the field army hospital supporting the division. Performance of this function includes—

(*a*) Evacuating patients from aid stations operating within the division area.

(*b*) Providing ambulance support to units of the division not having organic ambulances.

(2) The fourth ambulance platoon operates from the division trains area and may be used to reinforce forward ambulance elements; to assist in evacuating patients to the clearing station in the division trains area from the aid stations of divisional units not operating in the combat command's zone of action; or to support a separate task force.

(3) Details concerning the preparation of an ambulance plan; formulation of evacuation routes; establishment of an ambulance shuttle system; and the responsibilities of the ambulance company commander are discussed in paragraphs 70 through 84.

220. Clearing Company

a. General. The clearing company, armored division medical battalion, performs the clearing function of division level medical service for the armored division. This company consists of a company headquarters, four clearing platoons, and a neuropsychiatric section (fig. 8).

b. Mission. The primary mission of the clearing company, armored division medical battalion, is to—

(1) Receive, sort, and treat patients within the armored division, returning to duty such as are fit for duty and preparing all others for evacuation to the rear.

(2) Provide emergency dental care for personnel of the armored division.

c. Employment. The clearing company of the armored division medical battalion is normally employed by utilizing its four platoons and neuropsychiatric section as follows:

(1) In combat, a clearing platoon operates from the trains area of each of the three combat commands. Each clearing platoon establishes a clearing station with a capacity of 80 patients and receives patients from the battalion/squadron aid stations. Each clearing platoon is capable of establishing a clearing station which can be divided into two treatment sections capable of independent operations for limited periods. Full and continuous medical service support of a combat command is maintained by operating a clearing station utilizing both treatment sections of a clearing platoon; or splitting the station into two treatment sections and echeloning them laterally or in depth. The station(s) advance by either leapfrogging treatment sections, or by advancing a section and having the remainder of the platoon hold the patients until evacuated and then moving up to join the forward section.

(2) The fourth clearing platoon normally provides area medical support for the armored division trains area. This clearing platoon may be used in any of the following ways, provided area medical support for the armored division trains area is assumed by the field army medical service:

(*a*) To reinforce, replace, or leapfrog a clearing station supporting a forward area.

(*b*) To provide emergency aid stations for rear area damage control.

(*c*) To support a separate task force.

(3) A central psychiatric treatment facility for the armored division is established by the neuropsychiatric section of the clearing company, armored division medical battalion. This facility is normally established in the vicinity of the rear clearing station in the armored division trains area.

(4) Each clearing platoon dental officer furnishes emergency

dental care only. Routine dental procedures are performed by dental teams of the field army medical service during periods when the division is in reserve or otherwise out of action.

d. Noncombat Situations. The clearing company, armored division medical battalion, may be utilized to provide limited care and treatment of the sick and injured of the division who will be fit for duty within a short time.

e. Establishment. Clearing stations must be established and ready to receive patients as soon as battalion/squadron aid stations are ready to have patients evacuated.

f. Location. The location of clearing stations in the armored division is governed by the same general principles as those indicated for clearing stations of the infantry division.

g. Disposition of Patients. Evacuation of patients from all clearing stations of the armored division is the responsibility of the medical service of the field army, and is accomplished in the same manner as prescribed for the infantry division.

221. Hospital Support

Clearing stations of the armored division may receive close-in support from mobile army surgical hospitals.

Section V. COMMUNICATIONS

222. General

The armored division's extensive and flexible signal communication system makes for ease of command, control, and coordination of armored division operations, and enables the division to react quickly to the will of the commander in fast-moving situations. The armored division signal communication is characterized by—

a. Maximum use of radio at all echelons of command.

b. Use of numerous radio nets for separate and distinct purposes.

c. Versatile electronic signal equipment that can be integrated into a system of communication regardless of the task force organization.

d. Maximum use of a division area communication system.

223. Division Logistical Net RTT (Radio Teletype)

This net is used for transmission of administrative and logistical messages. The net control station is located at the division main command post and is under the operational control of the G4. The

command operations company of the armored division signal battalion provides medium-power equipment and operating personnel for three stations in this net: The previously mentioned net control station, a station for the commander of the division logistics control center (DLCC), and a station for the division trains commander. When necessary, the trains commander may use his set to enter the division command net RTT. Other stations in the division logistical net RTT include the S4's of the combat commands; S4's of the armored cavalry squadron, and the armored infantry, field artillery, engineer, and armor battalions; and the operations section of the ordnance, medical, and quartermaster battalions. In addition, the S4 of the armored division aviation company may enter this net when necessary by using radio equipment normally employed to operate in other nets.

224. Division Surgeon's Section

The division surgeon's section is not equipped with organic means of signal communication. However, this section normally operates in the vicinity of the division main command post at which point the organic radio facilities of G4 are available to the division surgeon for use in contacting all medical service elements of the division through the division logistical net RTT.

225. Medical Sections

The medical sections of the armored cavalry squadron, armor battalions, and the armored infantry battalions are equipped with radios and can maintain contact with other elements of their respective battalions through the battalion logistical net. Contact with the division surgeon and the armored division medical battalion is also maintained through the battalion S4 by means of the division logistical net RTT. The medical sections of the division headquarters, combat command headquarters, division artillery headquarters, field artillery battalions, and the armored division engineer battalion are not provided with organic signal communication means. However, these sections normally function in close proximity to their respective headquarters where radio facilities are available, and contact can be established with the division surgeon or the armored division medical battalion by use of the division logistical net RTT.

226. Radio Communication, Armored Division Medical Battalion

a. The armored division medical battalion has organic radio and radioteletype equipment which will normally operate in the following radio nets:

(1) *Division logistical net RTT.* A vehicle-mounted medium-power radioteletype set located in the battalion command post will operate as the armored division medical battalion station in this net. This RTT net will connect the battalion command post with the DLCC, division trains command post, and combat command trains areas. This provides the battalion command post with an additional channel of communication to the clearing platoons and ambulance platoons operating from the combat command trains areas.

(2) *Division warning broadcast net AM.* The battalion command post monitors this net to receive warnings and alerts.

(3) *Division trains command net FM.* The battalion command post may monitor this net, or other stations within the battalion headquarters may operate in this net as necessary.

(4) *Armored division medical battalion command net AM.* This is the principal command radio net for the battalion, since it is capable of operating over the distances normally found between the battalion commander, ambulance company commander, clearing company commander, and clearing platoon leaders. This AM radio net is used for operational command and control and logistical support of the battalion and its dispersed elements.

(5) *Armored division medical battalion command net FM.* The battalion operations vehicle, the 4 ambulance platoon leaders, and the 4 clearing platoon leaders have mounted FM radios which may operate in this net as necessary. Because of the normally wide dispersion of the elements of the battalion, use of this net will be limited.

b. The ambulance and clearing platoon leaders arrange for entry into logistical nets FM of the headquarters they are supporting and, if distance will permit, monitor the armored division medical battalion command net FM.

227. Wire Communication, Armored Division Medical Battalion

The armored division medical battalion can install, operate, and maintain a battalion wire net. When operating in the combat command trains areas, or other divisional areas, elements of the battalion arrange for entry into the local unit wire system or a signal center serving the division area communication system.

228. References

For general principles governing the armored division and armored operations, see FM's 17–1, 17–20, 17–33, 17–35, 17–50, 17–70, 17–100, and 100–5.

CHAPTER 13
MEDICAL SERVICE IN CORPS AND ARMY

Section I. MEDICAL SERVICE IN CORPS

229. General

The corps is the highest subordinate command in a field army. It is a flexible combat force consisting of a headquarters, some organic corps troops, two or more divisions, and reinforcing combat and service troops that may be attached in accordance with its mission. The corps normally operates as part of a field army. The functions of a corps in a field army are primarily tactical. The functions of a separate corps are both tactical and administrative, and it operates in the same manner as a field army. Under the former conditions, the corps commander has no responsibility for the administration of divisions. However, when administrative matters, including medical, impose limitations upon tactical plans, they come properly within his sphere of interest.

230. Medical Service in Corps

a. Medical service in a corps when serving as part of a field army consists of a medical section of corps headquarters, which includes the corps surgeon and those assistants required for the performance of his mission, and unit medical personnel of corps headquarters, which provide unit medical service to the headquarters. Normally, there are no medical units organic to the corps. In certain instances, however, operational control of certain field army medical units may be decentralized to the corps. When operating as an independent or separate corps, all necessary service units, including medical, are assigned to the corps in order that adequate service support can be provided for the performance of its mission. Operation of the corps then becomes identical with that of the field army. Further reference to the corps in this discussion refers only to a corps when serving as a part of the field army.

b. In certain instances the field army surgeon may find it desirable to recommend attachments of certain field army medical units to the corps for operational control in order to decentralize a portion of the medical service of the army. In this case, operational

control of these units passes to the corps surgeon as the medical staff officer of the corps commander. Such units may include medical groups, separate medical battalions, mobile army surgical hospitals, evacuation hospitals, and various types of cellular units. These units operate in the same manner as when operating under the field army except that decisions regarding their movements and tactical dispositions emanate from the corps instead of the field army. Normally, they are in support of only those divisions and combat and service elements attached to the corps.

231. Corps Surgeon

In addition to the duties normal to the surgeon of a large command, the corps surgeon has certain responsibilities not common to surgeons of other commands.

a. He keeps the corps commander informed of the medical situation in all divisions of the corps so far as it may exert any influence upon tactical operations.

b. He holds himself ready to carry out responsibilities for medical service which may be delegated to the corps commander. When the corps is operating independently, this will include the exercising of all functions of a field army surgeon.

c. He develops plans for the reinforcement of division medical service within the corps. Should such reinforcement be required, it is requested from the field army.

232. Office of Corps Surgeon

The exact organization of the office of the corps surgeon is determined by the corps surgeon and conditioned by existing personnel allocations. His major staff responsibilities normally fall into the following categories—

a. Administration. This includes general routine administration of corps medical troops, if any, and the housekeeping functions of his own office.

b. Personnel. This embraces management, assignment, and reassignment of personnel within the medical section of corps headquarters, and the making of recommendations in regard to other medical personnel attached or assigned to the corps.

c. Preventive Medicine. All matters pertaining to the prevention and control of disease including inspection and supervision of sanitation, inspection of food and water supplies, and the maintenance of statistics of disease and nonbattle injuries are performed in

his office. The responsibility of the corps with reference to preventive medicine is limited generally to corps troops and to those parts of the corps area that lie outside division boundaries. However, the field army may decentralize to the corps the supervision of preventive medicine measures of divisions attached to the corps. Under such circumstances the corps surgeon normally will be provided with a preventive medicine company from the field army. Whenever preventable disease reflects itself in the combat efficiency of the combat divisions, it becomes a matter of tactical concern to the corps commander and is then his responsibility.

d. Operations and Training. Routine responsibilities include the employment and training of medical troops attached or assigned to the corps and the supervision of training in first aid, sanitation, and personal hygiene for combat elements attached or assigned to the corps. Evacuation and hospitalization become responsibilities only when delegated by the field army. This subsection usually functions as an inspection service except when additional functions and responsibilties have been assigned.

e. Medical Supply. This includes supervision and inspection of medical supply matters within the corps and the taking of appropriate staff action through tactical and command channels in order to correct deficiencies.

f. Technical Specialists. Usually no technical specialists are assigned to the corps surgeon's staff for consultation service.

233. Relationship of Corps Surgeon to Other Surgeons

a. The relationship of the corps surgeon to division surgeons depends upon the administrative organization prescribed in the particular field army. Operating as a part of the field army, the corps normally has no administrative responsibility for control of division medical service. However, the corps surgeon may exercise technical supervision over division medical service to include inspections and the making of recommendations on technical matters. The corps surgeon does not exercise command authority over division surgeons.

b. The relationship of the corps surgeon to the surgeons of elements operating in the corps area is advisory only. When their medical operations affect the tactical operation of the corps, the corps surgeon takes necessary action through command channels.

c. The relationship of the corps surgeon to the field army surgeon is that which is normal to the relationship of any subordinate command to a higher command.

Section II. MEDICAL SERVICE IN FIELD ARMY

234. General Considerations

The field army is the largest self-contained tactical unit in the military forces of the United States. It has territorial, tactical, and administrative functions. Larger tactical commands may be formed by grouping two or more field armies. Such a combination is designated as an army group. Field armies of more than one nation may form such a group.

235. Organization of Field Army

The field army consists of a headquarters, army troops, and two or more corps. While the ultimate organization of the field army is no more fixed than that of a corps, the nature of its missions ordinarily precludes frequent or important changes in the means allotted to it. Flexibility of organization is best achieved by varying the allocation of divisions to the corps within the army.

a. Army Headquarters. Headquarters includes the commander and commissioned and enlisted assistants. The commander may establish one or more headquarters, usually a forward and a rear headquarters, and allocate his staff thereto as he desires. The composition of each headquarters will naturally vary with the mission of the army and its basic staff organization. A headquarters company provides the utilities, food service, and other housekeeping services for the headquarters.

b. Army Troops. Troops of any or all arms and services may be assigned or attached to the field army as the mission and situation may dictate. Elements of the following arms and services are normally present:

(1) *Air defense artillery* for the air defense of the field army area.

(2) *Corps of Engineers* for general engineering tasks in support of the field army as a whole and for reinforcing the organic engineers at subordinate levels; and for such special tasks as bridging, map making, camouflaging, demolition, hospital construction, road construction and maintenance, and the supply of water and engineer materials.

(3) *Signal Corps* for the construction, maintenance, and operation of field army signal communications of all types; photography; intercepting enemy radio communications and locating their radio stations; and for the supply of signal materials.

(4) *Chemical Corps* for the detection and identification of

chemical, biological, and radiological warfare agents; the decontamination of vital areas and materiel; the impregnation of clothing and other materials with protective agents; the employment of smoke; and the supply and maintenance of chemical, biological, and radiological warfare materiel.

(5) *Ordnance Corps* for the supply and maintenance of ordnance materiel including all motor transport.

(6) *Quartermaster Corps* for quartermaster supply and the provision of bathing and laundry facilities.

(7) *Army aviation* for the provision of aircraft, both rotary and fixed wing, for use in reconnaissance, delivery of personnel and supplies, aeromedical evacuation, and such other missions as may be assigned.

(8) *Artillery* for the provisions of long range support.

(9) *Army Medical Service* for the medical service of army troops, for the evacuation and hospitalization of casualties occurring forward of the army rear boundary, and for the supply and maintenance of medical materiel.

(10) *Military police* to control such parts of the army area as are not controlled by the military police of subordinate commands, and to relieve subordinate headquarters of their prisoners of war.

(11) *Transportation Corps* for the operation of truck companies, car companies, amphibious truck companies, and helicopter units.

(12) *Civil affairs units* for control of civilian affairs in the field army area.

c. Corps. Two or more corps may be assigned to the field army. For use as a basis of organization and for purposes of instruction, it may be said the field army consists of three corps, however, this must not be construed as fixing the number of corps per field army.

d. Divisions. Four or more divisions may be assigned to the field army. The type field army as discussed in *c* above contains 12 divisions—3 corps of 4 divisions each. The army commander attaches divisions to corps and relieves them therefrom. He may retain some divisions directly under his own control.

e. Allocations of Medical Units. Information for planning purposes regarding the allocations of medical units to a field army are contained in FM 101–10.

236. Administrative Responsibility of Field Army

The field army has full administrative responsibility for all of its component units. It is the next administrative headquarters

above the division, and it deals directly with divisions in all administrative matters.

a. Personnel. The field army is responsible for all matters affecting the strength, morale, and mobility of its troops. It normally maintains a replacement group from which it fills the personnel requisitions of its subordinate elements. The strength of replacement battalions within the replacement group is maintained at established levels by the theater army replacement and training command. These replacements are forwarded without requisition in sufficient numbers and with the appropriate military occupational specialty (MOS) to meet anticipated requirements based on loss estimates prepared by the field army and submitted to theater army. Replacements are furnished by the field army directly to divisions for divisional units; to corps for corps troops; and to field army units for army troops.

b. Supply. The field army is responsible for the submission of requirements and schedules for bulk POL and all other supplies (including packaged POL) in order to maintain the levels of supply prescribed by the U.S. theater army commander. "Levels of supply" is a general term used for planning purposes in the control of supply operations. It indicates the quantities authorized or directed to be kept available in anticipation of issue. The standard unit measure of stockage is expressed in days of supply or in certain cases, in specific units of quantity. Normally, stocks maintained in the field army depots represent approximately 5 to 7 days of supply. Field army requirements and schedules for bulk POL are submitted directly to the theater army logistical command quartermaster supply control center. The supply control center then issues orders for the POL intersectional service to move the bulk POL to its destination in the field army area. Field army requirements and schedules for all other supplies (including packaged POL) are transmitted to advance logistical command technical service supply control centers. Transportation for the forward movement of these supplies to the depot in the field army or to the division is effected by the transportation intersectional service.

c. Medical Service. The field army is responsible for all evacuation and hospitalization forward of the field army rear boundary.

237. Missions of Field Army Medical Service

The field army medical service relieves corps and division medical services of continued care and treatment of their sick and injured in such a manner that their medical services may retain maximum mobility; and furnishes direct medical support to the unit medical service of field army troops operating outside the

zones of responsibility of corps and division medical services. Specific missions of field army medical service include evacuation, hospitalization, reinforcement, medical supply, disease control and laboratory service, equipment maintenance and optical service, veterinary service, medical support for prisoners of war, and when appropriate, medical support to the civil affairs organization in matters relating to the civil population.

238. General Organization of Medical Service of Field Army

There are three component parts to the medical service of the field army:

a. The medical section of army headquarters, which includes the field army surgeon and his commissioned and enlisted assistants.

b. Field army medical units, consisting of those medical units in the combat zone that are not assigned or attached to a subordinate element.

c. Medical platoons, sections, or detachments that are organic to field army units.

239. Field Army Surgeon

The field army surgeon functions as a special staff officer of the field army commander. When so directed by the field army commander, he exercises operational control over all medical units of the field army not attached or assigned to a subordinate command. As a special staff officer of the commander, the field army surgeon has the following duties:

a. Keeps the commander and his general staff constantly informed as to the conditions in, and the capabilities of, the medical service for which the commander is responsible.

b. Elaborates the medical details necessary to carry the commander's decisions into effect.

c. Initiates measures for the prevention and reduction of disability and death rates in the command. Those measures involving command responsibility are initiated in recommendations to the commander(s) concerned. Measures pertaining only to technical procedures to be followed in the prevention, care, or treatment of disease and injury may be initiated by direct instructions to the medical officers concerned.

d. Advises the commander and his staff regarding all aspects of medical training for which the former is responsible.

e. Advises the commander and his staff regarding the allocations of medical service replacements and reinforcements.

f. Performs necessary inspections for the commander to insure

that his desires pertaining to the medical service in all commands, including the medical aspects of training, are being carried out.

g. Advises the commander concerning all command decisions pertaining to, or involving, the medical service.

h. Technically supervises the procurement, temporary storage, and distribution of all medical, dental, and veterinary equipment and supplies for which the commander is responsible; and studies medical supply requirements, advising the commander thereon.

i. Prepares and forwards consolidated reports relating to the sick and injured, and also furnishes this information to other staff officers concerned.

j. Keeps the surgeon of the next higher command informed of the medical situation within the field army.

k. Examines and reports upon captured medical equipment and supplies.

l. Maintains a close relationship with G5 on matters pertaining to civil medical requirements essential to meet the commander's obligations under convention treaties and national policies.

240. Organization of Office of Field Army Surgeon

The medical section of field army headquarters consists of the field army surgeon and his commissioned and enlisted assistants. No internal organization of the medical section is prescribed, nor can any rigid rule be laid down that will meet the requirements of all situations. However, the major missions of the field army medical service must be reflected in the organization adopted. This organization must be sufficiently flexible to enable the field army surgeon to shift emphasis among the various subsections as the situation requires. The following outline is intended as a guide which may be expected to satisfy average requirements:

a. Administrative Subsection. The administrative subsection is charged primarily with all routine administration of a general nature. Specific functions include—

(1) Operation of the message center.
(2) Supervision of the clerical pool.
(3) Maintenance of the office files.
(4) Preparation of special administrative reports.
(5) Responsibility for all fiscal matters.
(6) Preparation of public information releases concerning individuals and medical accomplishments of units in the field army. This is done in conjunction with the public information officer to whom the information releases are submitted for staffing and release.

b. Plans, Operations, and Training Subsection. The chief of this subsection is a Medical Corps officer especially qualified in the military aspects of medical service. His functions include—

(1) The training of medical units, lending assistance in the training of nonmedical units in basic medical subjects, development of training policies and programs, and the execution of training inspections.

(2) The employment of field army medical units, location of field army medical installations, assignment of medical tasks, allocation of medical service reinforcements to subordinate commands, and movement of medical units.

(3) The development of hospitalization and evacuation policies, in accordance with theater policies.

(4) Planning of the medical service for routine and special operations.

(5) Coordination, control, and screening of requests from field army medical units for temporary or permanent changes in their organization or equipment.

(6) Maintenance of contact with medical sections of allied troops, higher commands, and the theater army logistical command on all matters pertaining to the medical service in the combat zone.

(7) Medical regulating.

(8) Operational control of professional complements.

c. Preventive Medicine Subsection. This subsection is headed by a Medical Corps officer especially qualified in preventive medicine. Functions of this subsection include—

(1) Sanitary inspection of all field army units and of units of subordinate commands, in cooperation with the surgeons thereof.

(2) The inauguration of preventive medicine programs to meet special threats to health, such as malaria, typhus, heat and cold injury, venereal disease, and prevention of nonbattle injury.

(3) Preparation of the field army sanitary order and other directives dealing with the prevention of disease.

(4) Investigation of epidemics or unusual incidences of communicable disease or injury.

(5) Maintenance of contact with civilian health agencies, in coordination with G5 and the civil affairs unit in the area.

(6) Maintenance of contact with allied forces and with the surgeons of higher and lower headquarters.

(7) Review of sanitary reports of subordinate commands and the preparation of reports for higher headquarters.

(8) Submission of recommendations for the execution of surveys to determine measures to be used in the prevention of disease or the elimination of hazards to health.

d. Medical Supply Subsection. The chief of this subsection is a Medical Service Corps officer especially qualified in medical supply. He is the field army medical supply officer. In general, the function of this subsection is to maintain an adequate and constant supply of all items necessary to give complete medical service to every sick or injured individual of the command. Close liaison with G4, the supply agencies of other services, and the theater army and theater army logistical command medical supply officers is essential. Specific functions include—

(1) Close supervision of, and familiarization with, critical items and stocks contained in medical supply installations.

(2) In conjunction with G4, effects adjustment of medical supply installation stocks in anticipation of changes in the tactical situation. (These changes in stock levels are based on past experience under similar conditions, methods of treatment, length of lines of communications, and availability of transportation.)

(3) Inspection of medical units to ascertain the condition of medical equipment, and to determine the adequacy of storage facilities and stockage of medical items.

(4) Review requests for items of medical equipment in excess of authorized allowances.

(5) Formulation of medical supply plans for anticipated operations.

(6) Assistance in the selection of sites for medical supply installations.

e. Veterinary Subsection. Headed by the field army veterinarian, this subsection assists the field army surgeon in the following manner:

(1) Conducts or supervises the inspection of food.

(2) Initiates or consolidates veterinary reports for submission to higher headquarters.

(3) Supervises the activities of the field army veterinary units.

(4) Recommends sites for the establishment of veterinary installations, and the quartering of veterinary units.

(5) Coordinates the evacuation of animals from field army

veterinary units to communications zone veterinary hospitals.

(6) Maintains personnel records of veterinary officers.

f. Nursing Subsection. This subsection is headed by a member of the Army Nurse Corps, who functions as the chief nurse of the field army and serves in an advisory capacity to the field army surgeon, unit commanders, and chief nurses on matters pertaining to nursing activities. Normally, her duties are to—

(1) Maintain personnel data on officers of the Army Nurse Corps.

(2) Recommend the rotation of nurses within the combat zone so as to equalize workloads and assure rest from rigorous duty.

(3) Conduct technical inspection of the nursing service in field army hospitals.

(4) Recommend policies for the control and issue of equipment, clothing, and post exchange supplies for nurses.

(5) Coordinate the arrangement for facilities for nurses' rest and recreation.

(6) Coordinate the organization of facilities for the professional and administrative training of nurses and such enlisted medical service personnel as may be engaged in direct patient care in units which have no nurses, with the Chief, Plans, Operations and Training Subsection.

(7) Maintain liaison with the chief nurses of the theater, theater army, and theater army logistical command headquarters.

g. Personnel Subsection. The functions of the chief of this subsection include the following:

(1) Preparation and consolidation of personnel requisitions and reports.

(2) Coordination of the transfer and assignment of personnel of the Army Medical Service within the field army.

(3) Maintenance of personnel records, including qualification cards on all officers of the medical service.

(4) Processing of recommendations for direct commission and promotion of officers of the medical service.

(5) Establishment and operation of an equitable system for the rotation, rest, and recreation of personnel of the medical service. This is done in conjunction with G1.

(6) Preparation of citations to accompany awards and decorations for individuals and units operating under control of the field army surgeon.

h. Historical Subsection. The chief of this subsection has the following duties:

(1) Prepares the periodic reports on the medical service that are required by the commander and the field army surgeon.

(2) Compiles the annual report of medical activities.

(3) Assists medical historians of subordinate units in the preparation of their reports and histories, and checks field army medical units for the maintenance of proper historical records.

(4) Drafts inclosures pertinent to the medical service for inclusion in the field army history.

(5) Maintains a chronological record of important policies and activities of the medical service.

i. Medical Records and Statistics Subsection. This subsection is headed by an especially qualified statistician and performs the following functions:

(1) Collection of statistical data from all available reliable sources.

(2) Evaluation and interpretation of the data and their organization into usable form.

(3) Preparation, for the field army surgeon, of statistical data that reflect the status of the medical service.

(4) Assisting other subsections in preparing the statistics for operational reports.

(5) Providing the chief of the historical subsection with available material of value in developing a complete and accurate history.

(6) Preparation of experience tables for use in anticipating such data as numbers of casualties and personnel requirements.

(7) Preparation of directives pertaining to medical statistical reports and records; providing assistance to hospital registrars and corps, division, and unit administrative officers in establishing simple yet effective medical records procedures, and familiarizing them with field army requirements.

j. Consultants. Normally, there is a surgical, a medical, and a neuropsychiatric consultant in the medical section of field army headquarters. Other consultants may be designated to fill requirements resulting from unusual climatic, geographical, battle, or other conditions. The field army surgeon may find it desirable to organize the consultants into a subsection. If not, they usually

function directly under the field army surgeon's deputy. Their duties include dissemination of technical information, professional guidance and stimulation, the evaluation and supervision of the proper usage of skilled personnel, review of technical reports and articles for publication, and the formulation of policies pertaining to the treatment of the sick and injured.

241. Relationships of Field Army Surgeon

a. With Subordinate Surgeons. The relationship of the field army surgeon with the surgeons of lower command levels will depend in large measure on the policies of the field army commander. In all cases, however, the field army surgeon directly supervises all medical service for which the field army commander is responsible and exercises full authority over the technical aspects of medical service.

(1) In preventive medicine, policies directed at the prevention and control of disease and injury are command decisions. The field army surgeon, however, must coordinate and direct such technical activities as are undertaken in compliance with policies or specific instructions of the field army commander.

(2) In treatment of the sick and injured, the field army surgeon will prescribe the methods of treatment and preparation of patients for evacuation to be followed in lower commands. He will define the term "nontransportable" in relation to the types of patients who will be retained in mobile army surgical hospitals or evacuation hospitals of the combat zone.

(3) Arrangements for evacuation are made through command channels, ordinarily by the G4 of the interested headquarters. The details, however, are arranged between the field army surgeon and the surgeons of the subordinate commands. This requires a close coordination during periods of active operations.

b. With Surgeons of Field Army Units. In his relationships with surgeons of field army units, other than medical, the field army surgeon exercises technical supervision, but no operational control.

c. With Commanders of Field Army Medical Units. Although field army medical units are commanded by the field army commander, the field army surgeon exercises, when so authorized by the commander, operational control of those field army medical units not attached or assigned to subordinate commands.

d. With Medical Regulator. The surgeon of the theater army logistical command has an officer on his staff who functions as a medical regulator. The medical regulator of the theater army

logistical command is responsible for the coordination of evacuation of patients between the combat zone and the communications zone. It is essential that there be close cooperation between the field army surgeon's evacuation officer (MRO) and this medical regulator. The field army surgeon's medical regulator will keep the theater army logistical command medical regulator informed of the number and location of patients awaiting evacuation, and pass on to him the necessary information of anticipated developments in the medical situation in his area (par. 276).

e. With Surgeon, Theater Army Logistical Command. It is essential that there must be close cooperation between the field army surgeon and the surgeon of the theater army logistical command. The field army surgeon must keep the theater army logistical command surgeon informed of the evacuation requirements of the field army. The location of theater army logistical command medical facilities in the combat zone, rotation of personnel, the supply of whole blood to combat troops, evacuation, supply, and property exchange are some of the matters requiring close coordination and agreement between the two surgeons.

f. With Chief Surgeon, Theater Army. In principle, the relationship between the field army surgeon and the chief surgeon, theater army, is similar to the relationship of the division surgeon to the field army surgeon. There must be close contact between the two, the field army surgeon keeping the chief surgeon of the theater army fully informed of the current medical situation in the field army, and of his plans for the employment of the medical service in future operations. The impetus of all medical service comes from the rear; it is therefore essential that the theater army chief surgeon be kept continuously aware of the activities of, and plans for, employment of the field army medical service.

242. General Considerations in Evacuation

Evacuation is the process of moving patients to and through successive medical installations. For each patient that is moved to the rear there must be a replacement brought forward; therefore, it is essential that the medical service does not evacuate patients of any type that can be rehabilitated in the various medical installations of the field army. Critical evaluation of the time required for rehabilitation of each patient, as opposed to the immobilization of medical installations by the accumulation of patients, must be made prior to evacuation from combat zone installations. The entire scheme of evacuation is based on the principle of providing adequate care en route, the most rapid method, the shortest route, and the least discomfort to the patient.

a. From Divisions and Corps. The responsibility for evacuation of patients passes to the field army at the division clearing station. Transportable patients are moved as soon as they receive the minimum essential treatment in order to avoid immobilizing the clearing station with large numbers of patients. Normally, they are evacuated to a mobile army surgical hospital or evacuation hospital. Field army ambulances and army aircraft are the usual means of transportation. Nontransportable patients received in the division clearing station are transferred to a mobile army surgical hospital which is normally located in the vicinity of the clearing station. When nontransportable patients are received in a clearing station that is not supported by a mobile army surgical hospital, and if the tactical situation permits, army aircraft may be used to evacuate these cases to an evacuation hospital or, they may be held at the clearing station until they can be moved safely even though such action temporarily immobilizes a portion of that unit.

b. From Units of Army Troops.

(1) The field army medical service, with its organic ambulances, collects the patients from the dispensaries and aid station of units to the rear of the division rear boundaries, and transports them to a mobile army surgical hospital or evacuation hospital or, on occasion, to a field army clearing station. The patients of a field army clearing station usually enter the field army evacuation system and normally are taken to an evacuation hospital, an army convalescent center, or to units established for the treatment of special types of cases.

(2) Field army units operating within the division zone of responsibility are not usually provided direct support by the field army medical service. They are supported by the medical service of the division.

c. Rear Termini of Field Army Evacuation System. Normally, evacuation hospitals are the rearmost units in the field army evacuation system. At these installations the responsibility for evacuation passes to the theater army logistical command. However, if a field army holding company or some other unit is employed to operate a holding installation anywhere in the evacuation system, the field army medical service assumes the responsibility for evacuating patients from the hospitals to the holding installation even though it may be rearward of the evacuation hospitals. At the holding installation, then, the responsibility for evacuation passes to the theater army logistical command. Field army is responsible for delivery of patients to whatever terminus of evacuation that has been established as the transfer point for evacuation respon-

sibility. Evacuation of patients by air from the combat zone to the communications zone is the responsibility of the Air Force. Patients may be evacuated from field army medical installations to the communications zone by means of air force ambulance plane, motor ambulance, ambulance train, ship, or other bulk transport. When the theater army logistical command establishes hospitals in the field army area, it may be simpler for field army to evacuate its patients direct to such fixed installations.

d. Veterinary Evacuation. When required, veterinary evacuation systems in the field army are comparable to those for human evacuation (ch. 19).

243. Operations in Evacuation

The G4 section is the general staff section concerned with evacuation. It is a responsibility of the field army surgeon to keep that office informed of the operation of the field army system of evacuation, and to obtain from it such decisions for the use of the areas, buildings, and routes as are necessary for the coordinated operation of the evacuation system. Evacuation of divisions in established land warfare is carried out as follows:

a. Arrangements. In strict procedure, the arrangements for the evacuation of divisions are instituted through command channels. The details, however, are worked out through technical (medical) channels. The arrangements include an estimate of the number of patients to be evacuated, the locations of the clearing stations, the schedule to be followed, and the routes to be taken.

b. Control. Careful control of the evacuation of patients to field army hospitals is necessary to effect an even distribution of cases, to assure adequate beds for current and anticipated needs, and to route patients requiring specialized treatment to the proper installations. This control is exercised by the medical regulating element of the field army surgeon's office. An efficiently working evacuation system will decrease the number of times a patient is handled between the division clearing station and the field army hospital, and between one field army hospital and another; it will also prevent the driving of ambulances to several installations in the attempt to find beds for patients. Rigid control is maintained especially for the evacuation of patients in need of surgery. Without this control, backlogs of patients awaiting surgery will occur in the hospitals closest to the combat action. Sound, professional judgment must be exercised in the division clearing station in deciding whether a patient is nontransportable, whether he must be evacuated to a nearby hospital, or whether he can stand a trip farther to the rear.

c. Responsibility. Responsibility for evacuation of patients passes to the field army when they have been loaded at the division clearing station.

d. Care and Treatment En Route. It is the responsibility of a medical officer of the division clearing company to inform the individual in charge of the field army ambulances or air ambulances of any special attention that may be required by a patient en route. This procedure is necessary whether or not the information appears on the emergency medical tag of the patient. It is the responsibility of the individual in charge of the field army ambulances to see that proper investigations are made en route for the safety and comfort of the particular patient in question.

e. Ambulance Control Points. It is often desirable to establish ambulance control points along the evacuation route. The primary purpose of these points is to direct ambulance loads to the proper hospitals in accordance with the field army evacuation and hospitalization plans. These points are usually operated under the supervision of medical service groups using units under their control. They serve to control the flow of patients to hospitals in support of the corps in whose area they operate. Patients are diverted to these hospitals in accordance with directives of the field army surgeon. Control points are not stations for the routine examination and treatment of patients en route.

f. Delivery of Patients. The bed status or surgical backlog of hospitals to the rear of the control points may necessitate diverting ambulances to two or more hospitals. The serious condition of one or more patients in a group of patients may require that a separate vehicle proceed to the nearest hospital, while the rest of the ambulances go farther to the rear.

g. Feeding En Route. When schedules are made for the day's evacuation, an effort must be made to avoid having patients on the road during mealtime. Receiving hospitals must be kept informed of the expected time of arrival of ambulances to enable the hospital commander to make necessary plans and arrangements for the receipt and feeding of patients. If an ambulance haul is over 3 hours, additional facilities should be established en route, preferably at the ambulance control points, for feeding, examination, and emergency treatment of patients.

h. Property Exchange. The field army ambulances carry forward sufficient equipment to effect property exchange. The clearing station is responsible for the actual exchange of property.

i. Communications. An efficient system of communications must be established for the control of evacuation, since it is not unusual

during combat for the entire evacuation pattern to be changed from day to day, or even several times during one 24-hour period. Since a change of plans affects several hundred battle casualties, it is essential that a shift from one plan to another be accomplished smoothly and rapidly.

j. Vehicle Markings. Vehicles used for the evacuation of patients should be clearly marked with the Geneva Cross, provided this practice does not prejudice combat.

244. Evacuation During Assault Phase of Amphibious Operation

During the assault phase of an amphibious operation, casualties are collected and treated in the objective area by organic medical personnel, and from there are evacuated to the shore party medical evacuation station. At this point casualties are classified and evacuated by designated landing craft or by helicopter to casualty control evacuation ships. At the control ship, casualties are treated, sorted, and evacuated to the casualty carrying ship designated to receive the particular type casualty.

a. The medical plan for an amphibious operation must include specific instructions relative to the use of assault shipping for evacuation. This use of assault craft must be further coordinated with the U.S. Navy.

b. The medical regulating element of the field army surgeon's office will require detailed information from each hospital and clearing station regarding its bed status and number of patients awaiting evacuation, so that immediate advantage can be taken of any opportunity for seaward evacuation.

245. Air Evacuation

Aircraft are called for on the basis of anticipated needs and also to meet emergencies that may suddenly fill field army hospitals to capacity. Air evacuation is directly dependent on enemy action, weather conditions, and the availability of aircraft. Normally, the Air Force establishes casualty staging facilities adjacent to air evacuation loading points in order to expedite the loading of aircraft and to provide medical care for patients waiting for aircraft to arrive.

246. Evacuation Policy

It is not advisable for the field army surgeon to recommend a long-range evacuation policy for the field army area. Many factors which may vary from day to day affect the length of time patients may be held in field army hospitals. Among these are the admission rate, the rate of dispositions, the total number of beds within the

field army, the capabilities of the professional staffs of the field army hospitals, the tactical situation of the field army, and the availability of theater army logistical command transportation and hospitals.

a. In Static Situation. During a slowly moving or stabilized situation when patients are received at a fairly constant moderate rate, field army hospitals may be permitted to approach the saturation point by retaining all patients who do not require treatment in a general hospital. In this type of situation, field army hospital beds totaling 5 percent of the field army strength will approach a balance between the admission rate and the disposition rate, and reduce the number of patients evacuated out of the combat zone. The evacuation policy may vary within the limitations of the theater evacuation policy.

b. During Heavy Combat. When heavy combat results in the flow of a large number of casualties, the evacuation policy must be adjusted to make beds available for current and anticipated needs, and as a result a lesser proportion of patients admitted are retained for treatment. Evacuation policies may differ among the hospitals in the field army area, depending on their location, facilities, staffs, and the type of patients they receive. The forward displacement of hospitals reduces temporarily the number of beds available for patients and results in a greater number being evacuated to the communications zone.

c. Control. Policies for the retention and disposition of patients are established by the field army surgeon and are put into effect by the hospitalization officer. It is impossible to divorce hospitalization from evacuation, supply, and the consultation service; therefore, close coordination of all subsections of the field army surgeon's office is essential in the control of hospitalization. Policies and directives concerning hospitalization are usually conveyed to subordinate commanders by means of informal, oral orders.

247. Hospitalization

The employment of field army hospitals in the combat zone is governed by two basic principles: first, hospitalization is provided as close as practicable to the troops requiring it; and second, the maximum number of personnel are returned to duty within the combat zone in order to conserve the fighting strength of combat troops. Although hospitalization is provided in the forward areas for patients for whom it is essential, the hospitalization of all serious cases in the most forward units should be avoided. Since many serious cases are not harmed by a reasonable amount of travel, it is desirable to evacuate them to a hospital where prompt,

unhurried treatment can be given. Medical cases should be distributed to hospitals according to type and professional capabilities of hospital staffs. Evacuation is controlled to effect a distribution of cases so that each can receive the treatment required.

248. Types of Field Army Hospitals

Mobile army surgical hospitals, evacuation hospitals, and convalescent centers are normally utilized in the combat zone. Units for the treatment of certain conditions, e.g., psychiatric disorders, may be established by the field army surgeon by the addition of professional teams and extra equipment to separate clearing companies.

249. Location of Field Army Hospitals

Field army hospitals should be located near the troops to be supported and accessible, both from the forward and the rear areas, by normal means of transport. The sites selected should be on well-drained ground with a natural protection from flash floods, high winds, and excessive heat or cold. Ample space should be available for dispersion and expansion, if the latter should become necessary. Sites are undesirable if they cannot be easily evacuated and cannot effectively display the Geneva Cross. They should not be located near supply or ammunition dumps, important crossroads, or other potential targets of enemy air attacks; and should not be placed in buildings, unless the structures are clean, well-maintained, have ample utilities, and can be quickly adapted to use by a field army hospital.

250. Medical Planning

The field army surgeon is responsible for the preparation of the field army medical plan, which is based on decisions of the commander. These basic decisions are usually amplified by the general staff sections of field army headquarters, thereby giving the surgeon sufficient information on which to formulate his plan. The medical plan is prepared, approved by the interested staff sections and issued, usually in the form of a directive, through command channels to all units concerned. There are a number of ways in which a medical plan may be written. It may be incorporated as a paragraph in an operation, administrative, or logistical plan; or it may appear as an annex to any one of these three. This plan must be complete, yet concise and devoid of unnecessary details. In it the general policies of the field army surgeon are stated and the plan for operation of the medical service is given. The plan includes all pertinent data regarding evacuation, hospitalization,

and medical supplies. A miscellaneous section of the plan covers items, such as prisoner-of-war casualties, civilians, displaced persons, enemy aliens, disposition of the dead, traffic, and stragglers and malingerers apprehended in medical installations. Instructions are given in the plan, or issued separately, regarding medical records, reports and returns, medical and surgical procedures, and other technical matters. The detailed preparation of the medical plan requires close contact with the theater army and theater army logistical command surgeons in order to prevent conflict with policies and procedures established by them. Although the method of staff planning will vary in different headquarters, the general procedure is as follows:

a. *Development of Medical Plan.* After receipt of the initial directive which gives information concerning the mission, participating combat troops, time factors, target area, and target date, the field army surgeon prepares a recommendation to G3 which is submitted through G4 and contains the types and numbers of medical units required to support the troops involved. This recommendation may include the theater army logistical command units needed initially to support the field army as it moves forward. The recommendation is based on careful consideration of the anticipated number of casualties, the terrain, communication and transportation facilities, the climate, condition of the troops, and medical units available, and other pertinent factors.

b. *Movement Planning.* When a tentative troop list has been approved by G3, G4 requires detailed information concerning each unit, including number of personnel, the number and type of vehicles, and the bulk and weight of organizational equipment. This information must be exact, since it is used to compute the amount of shipping space, airlift, or ground transportation required.

c. *Supply Plan.* In addition, G4 will require an estimate of the weight and cubage of medical supplies necessary to support the operation. Sufficient supplies are set up to care for captured enemy sick and injured according to established policies. Allowance must be made for losses en route, plus replacement factors. It is better to allow for early liberal consumption of essential items, such as litters, blankets, cots, plasma volume expanders, plaster of paris, bandages, gauze, and adhesive tape, than to plan too economically since resupply of medical items is precarious during the first few days of an operation.

d. *Embarkation Plan.* If the operation is amphibious, the next step in planning is the designation of medical units for each convoy. Provision is made to load sufficient hospitals, surgical

teams, supply personnel, and clearing and collecting elements early in the operation to establish an adequate medical service. Since evacuation by sea or air is extremely uncertain, sufficient beds to hold the anticipated casualties ashore until evacuation is firmly established must be loaded on an early convoy.

e. Information for Other Staff Sections. The field army surgeon's study of the forthcoming operation will produce information of value to other staff sections of the headquarters. He must coordinate with G1 concerning the casualty estimate, which is required in planning for replacements. The G3 and G2 sections must be informed of health hazards that might influence friendly or enemy operations. Medical training in which the troops are known to be deficient must be reported to G3, with recommendations for corrective action.

f. Appendixes. The sanitation appendix containing instructions in the prevention of disease, the medical appendix indicating the location of hospitals and medical supply installations, and the plan of evacuation are prepared and submitted to the G4 section for inclosure in the administrative plan.

251. Movement of Medical Units

It is the responsibility of the field army surgeon to plan for transportation whether it be by motor, rail, water, or air. He obtains motor transport for the movement of units whose organic transportation is insufficient for an independent move. This may be done in two ways:

a. By use of vehicles from other units of the field army medical service. This method is the simpler, when practicable, in that it permits all arrangements to be made with the field army medical service and is advantageous in that the vehicles used are protected according to the terms of the Geneva Convention.

b. By requisition on the transportation section, through G4, for the necessary number of vehicles. This method has the advantage of using vehicles that are maintained for the transportation of the field army and does not deprive medical units of vehicles for which they have routine use. The disadvantage of this method is its uncertainty. Field army hospitals usually move when the rest of the field army is moving, and Transportation Corps resources may not be sufficient to fill all requirements.

252. References

For further information governing field army and corps functions and operations, see FM's 100–5, 100–10, 101–5, and 101–10.

Section III. AIR AMBULANCE SERVICE

253. General

The inherent characteristics of the helicopter increase the speed and flexibility of the evacuation system of the Army Medical Service. The capability of the helicopter ambulance to circumvent enemy defenses and natural obstacles, to remove patients from and transport medical supplies to otherwise inaccessible areas, and to transport patients to predesignated medical installations, increases operational efficiency and augments the evacuation system of the Army Medical Service. The minimum landing site requirements of the helicopter which permit its use well forward, and its capacity for speed over unfavorable terrain, will permit rapid evacuation of patients from the forward areas to field army service area medical facilities in direct support of the battle group or battalion medical service. When necessary, the surgeon may augment air ambulance service by requesting from the appropriate commander the use of nonmedical aircraft, i.e., fixed or rotary wing aircraft organic to other units in the field army area.

254. Mission

The mission of the air ambulance service is to provide evacuation by air of patients requiring immediate emergency medical treatment; to furnish routine evacuation when ground evacuation is not feasible; and to provide a means for rapid lateral shifting of patients to medical facilities better able to provide immediate treatment.

255. Organization

Air ambulance service is provided by medical air ambulance units. Normally, units of this type are allocated to each corps and when so authorized by the field army commander function under the operational control of the field army surgeon. When so authorized by the field army commander, this control may be delegated by the field army surgeon to the surgeon of subordinate elements when deemed necessary for the efficient and economic utilization of the aircraft. In addition to medical air ambulance units, field army nonmedical aircraft may be employed in the evacuation of patients.

256. Capabilities

The number of patients that can be transported during a normal day of operation by each air ambulance is dependent upon the type of aircraft utilized and time and distance involved in each

trip. The primary objective in using the air ambulance is to reduce the time lag between injury (onset of illness) and institution of lifesaving treatment. Normally, air ambulances should not be used to transport patients whose treatment can be successfully accomplished at division level unless ground or surface evacuation is impracticable. Air ambulances are used as far forward as the tactical situation will permit. If necessary, this may include evacuation from enemy territory. Normally, however, they operate between battle group and battalion aid stations, clearing stations, and field army medical units, such as mobile army surgical and/or evacuation hospitals.

257. Safety Measures

a. Helicopters normally fly at comparatively low altitudes and are vulnerable to various types of friendly and enemy fires.

b. Employment of air ambulances must be coordinated with army aviation control agencies in the area of flight to avoid interference with tactical security, friendly artillery fire and tactical air support.

c. To insure maximum safety in air ambulance evacuation of patients, certain safety factors are to be considered, such as proper dispatch of air ambulances, routing of flights to circumvent obstructions, and lifting or shifting friendly artillery and other fire when determined necessary by the appropriate commander.

(1) The operations of air ambulance aircraft in a theater of operations may be divided into three general categories:

(*a*) Operations in rear of division service installations.

(*b*) Operations in advance of division service installations within the division area.

(*c*) Operations in disputed or enemy territory.

(2) Generally, all army air operation in rear of division service installations will be conducted along predesignated routes within detailed flight-by-flight coordination with ground agencies. When air ambulances are used forward of the division service installations, the staff officer who arranges the mission is responsible for coordination through the corps and/or division fire and aviation control agencies to prevent interference with friendly artillery and motor fires and to avoid fire at air ambulances by friendly ground troops.

(3) Flights during hours of darkness or periods of reduced visibility will require a flight plan to be filed with the

corps or division air traffic control agency to effect aircraft separation and identification.

(4) When the situation permits, the appropriate combat commanders may effect necessary coordination to assure maximum protection for air ambulance missions in disputed or enemy territory by several means. Included are—

(*a*) Lifting or shifting of friendly fires.

(*b*) Placement of suppressive fires on the enemy.

(*c*) Air cover and/or escort.

(*d*) Combinations of the foregoing.

258. Communications

a. Radios installed aboard the aircraft and mounted on vehicles of air ambulance units provide air-to-ground, ground-to-ground, and air-to-air communications. The radios installed in the vehicles permit contact with the airstrip and contact with aircraft during landing and takeoff, as well as while the aircraft are in flight. Radios installed in the aircraft also permit air-to-ground contact between aircraft and battle group aid stations. When authorized by existing SOP's, the battle group medical platoon may withdraw from the command net in order to communicate with the air ambulance. Prior to withdrawing from the command net, the battle group surgeon must assure that alternate communications are available to the supported unit, and that all concerned are fully informed. Ordinarily, in order to assure continuity of medical service, it will be preferable to contact the air ambulance through alternate means and remain on the command net.

b. Requests for air ambulance evacuation originating at battle group aid stations can be processed to the division, corps, or field army surgeon over the following "common-user facilities":

(1) Voice over wire.

(2) Teletype over wire.

(3) Radio relay.

(4) Voice radio.

(5) CW radio.

c. Radio contact between air ambulances and supported units should be held to a minimum, placing emphasis on complete, accurate information in the original request for air ambulance service, and relying primarily on panels, smokes, and/or lights to guide the air ambulance to the landing site.

259. Operations

a. When so authorized by the field army commander operational control of air ambulance units may be retained by the field army

surgeon, or he may delegate such control to the surgeon of a subordinate command or to a medical group commander when in keeping with the specific mission and the tactical situation. These units are normally located within the combat zone. Specific location of air ambulance units is determined by distances involved in evacuation, location of hospitals, and space availability. The air ambulance unit headquarters should be as close as practicable to the headquarters whose surgeon is assigned its operational control. Normally, the unit bivouac area is apart from the landing zone to avoid drawing enemy fire upon the bivouac area and to take advantage of camouflage and concealment.

b. Normally, individual missions of the aircraft are based upon requests from the units requiring the service or upon reports from members of the air ambulance unit operating in forward areas. The surgeon under whose operational control the unit is functioning, based upon his knowledge of the overall situation, upon information included in the requests, and information supplied by the air ambulance unit commander, approves and assigns an appropriate priority to requests for air ambulance service. When required, the surgeon may direct air ambulance service to isolated units not submitting formal requests. Individual requirements for air ambulance service should be of an urgent nature. Requests for air ambulance service are therefore transmitted with minimum delay.

(1) Normally, requests will be processed through the division surgeon, who immediately determines, through the division aviation control agency at his level, whether local conditions will affect the utilization of air ambulances reaching the area. He then relays the request and additional comments of information which may be applicable directly to the controlling surgeon. If operations are to be conducted in disputed or enemy territory, he additionally obtains from the division aviation control agency information as to whether any of the support measures enumerated in paragraph 257*c*(4) will be utilized, and includes such information in his message.

(2) Upon receipt of the request, the controlling surgeon directs the employment of the air ambulances and informs the division surgeon of the dispatch, giving estimated time of arrival and routing. Prior to such reply, he checks with the division aviation control agency at his level, if such is indicated.

(3) Based on the foregoing reply, the division surgeon then completes arrangements with the division aviation control

agency and relays all pertinent information to the requesting surgeon.

(4) In order that the division surgeon and the controlling agency are able to properly evaluate and establish priority for evacuation, requests should contain the number of cases to be evacuated and the diagnosis of each case. In addition, requests must include the exact location by grid coordinates, identification of the landing site, the time patients will be ready for evacuation, and any emergency requirements for special items of medical supply, such as whole blood.

c. Relay of orders to the landing zone relative to the dispatch of aircraft is normally accomplished by the air ambulance unit which maintains continuous contact and close coordination of its activities with the responsible surgeon. Messages concerning the dispatch of the aircraft are conveyed to the airstrip or aircraft by the most expeditious means of communication available, i.e., field telephone, radio, or messenger. Changing weather conditions and operational situations brought about by enemy action may require a change in the landing point or a rerouting of the flight. In such cases, orders can be altered by means of radio contact with the aircraft while in flight. This procedure provides maximum safety for air evacuation of patients.

d. Air ambulances are useful for the rapid delivery of critically needed medical supplies to forward medical units. They should be made available for this purpose when the delivery of these supplies can be accomplished in conjunction with, and without interference to, the evacuation of patients.

e. The unit requesting air ambulance service has the responsibility of selecting and marking the landing site and of loading the aircraft.

f. It is essential that a system of property exchange be established.

g. The choice of destination of an evacuated patient varies depending upon operating conditions, patient's condition, distance and flight time involved, and like factors. Destinations are normally specified by the army (independent task force) surgeon at the time the mission is approved. The army (task force) medical regulating agency arranges for the receiving facility to be notified of the estimated time of arrival of the evacuation flight.

260. Maintenance

Maintenance constitutes a major problem in the employment of helicopters. In order for proper maintenance to be performed

on the helicopter ambulances, each craft is deadlined in accordance with instructions pertaining to the type craft. Three categories of maintenance apply to army aircraft and are followed in the maintenance program of the air ambulance unit.

a. Organizational maintenance is performed by the air ambulance unit with the personnel, tools, equipment, and spare parts available.

b. Field maintenance for army helicopters is the responsibility of the commander of the field army to which the air ambulance unit is assigned, and is provided by army aircraft field maintenance units of the Transportation Corps.

c. Depot maintenance of army aircraft is the responsibility of the Transportation Corps.

261. References

For further details regarding helicopters and air ambulance service, see FM's 1–100, 8–5, and 8–35.

CHAPTER 14
MEDICAL SERVICE IN COMMUNICATIONS ZONE—GENERAL CONSIDERATIONS

Section I. GENERAL

262. Introduction

Medical service in a theater of operations is continuous. It is interzonal and intersectional in character, interzonal in the respect that the efficiency of its operation depends upon the coordination established and maintained between the medical services of the combat and communications zones, and intersectional in that treatment in fixed hospitals and the evacuation of masses of patients in the communications zone normally cannot be limited to sectional boundaries. Although it is normal in a large theater to decentralize operations to subordinate commanders, it is essential that adequate control of such operations be exercised by the commander of the theater army logistical command. Thus, decentralization of control of medical operations to subordinate commanders is normally limited to those activities which do not inhibit the operation of the medical service of the theater army logistical command as a whole. While the commander of the theater army logistical command is charged with the proper employment of medical troops of his command, he habitually delegates the immediate responsibility for control to his surgeon.

263. General Characteristics

a. The communications zone is the area required for the administrative support of the theater as a whole. The nature of the administrative operations in comparison with the ground combat operations of the combat zone implies a less active role. However, from the standpoint of the medical service this implication is not based on fact. This is evidenced by the impetus of medical supply from the communications zone to the combat zone and the great mass of work of the medical service in the communications zone resulting from the rearward movement of patients from the combat zone. Normally, it is a function of the theater army logistical command to relieve field armies of

their patients. This requires the evacuation of patients from hospitals and holding installations of the field armies located well forward in the combat zone. It necessitates the obtaining of areas suitable for development as fixed hospital sites so located as to fit into an efficient evacuation pattern; the provision of fixed hospitalization sufficient to meet anticipated bed requirements at the time required; the arrangement for the evacuation of masses of patients by train, ship, and plane; and the coordination with other agencies in those matters necessary for the accomplishment of the mission.

b. Long-range planning is required to utilize effectively the limited organic resources of the medical service of the theater army logistical command and the resources made available to it by other agencies.

Section II. ORGANIZATION

264. General

The theater army logistical command is a subdivision of the theater army forces organized for the administrative support of the combat zone. Subordinate elements of the theater army logistical command consist of advance logistical commands, base logistical commands, and area commands when the latter are required.

265. Medical

The medical organization of the theater army logistical command is subject to extreme variation depending on its size and location, the type of operations, and the desires of the commander, theater army logistical command. Normally, however, there are certain principal elements present:

a. The theater army logistical command surgeon and his office.

b. Medical units and detachments concerned with command, evacuation, hospitalization, preventive medicine and laboratory, supply and maintenance, dental service, veterinary service, and miscellaneous types of units and detachments as required.

c. Normally, units assigned to the theater army logistical command are not provided with medical sections, but receive their unit medical service from medical elements providing such service in the area in which they are located. Therefore, medical detachments and/or dispensaries (TOE 8–500) must be provided for the support of nonmedical troops of the theater army logistical command.

Section III. THEATER ARMY LOGISTICAL COMMAND SURGEON

266. General

a. The theater army logistical command surgeon is a member of the technical staff of the commander, theater army logistical command, and as such he has access to all other members of the theater army logistical command operational and technical staffs, and, when necessary, to the commander of the theater army logistical command. The specific functions of the theater army logistical command surgeon in any instance depend upon two basic considerations: first, on the extent to which administrative responsibility is delegated or decentralized to the commander of the theater army logistical command by the theater army commander; and, second, on the extent to which the commander of the theater army logistical command decentralizes operations to his subordinate commands.

b. Decentralization of medical functions to subordinate commanders is limited to those activities which do not interfere with the operation of the medical service of the theater army logistical command as a whole. Therefore, commanders of theater army logistical commands normally retain central control of construction standards for fixed hospitals; the general location, relocation, opening, and closing of fixed hospitals; and the mass evacuation of patients with disregard to the boundaries of subordinate commands.

c. Usually, in a large theater, the commander of the theater army logistical command will decentralize operations to a greater extent than in a smaller theater. The theater army logistical command surgeon is primarily a technical service staff officer supervising the technical activities of his service within the communications zone through technical channels. Operational control of medical units attached to a subordinate command normally is exercised by the surgeon of the subordinate command.

d. Normally, in a small theater, the theater army logsitical command is not divided into subordinate commands by the commander, and he may charge the surgeon with the conduct of medical operations throughout the communications zone and with rendering medical support to all Army units and such Navy, Air Force, Allied, and other forces as may be appropriate.

267. Responsibilities

The theater army logistical command surgeon is normally responsible for the following functions:

a. The provision of information and technical advice to the

commander of the theater army logistical command and his staff, keeping them constantly informed as to the condition, capabilities, and requirements of the medical service in respect to personnel, equipment, and the establishments required.

b. Operational control of all medical units not assigned or attached to other subordinate commands.

c. Recommendations for procurement and employment of medical troops and their allocation to subordinate commands of the theater army logistical command.

d. The supervision of training of theater army logistical command medical units; training in sanitation, first aid, and hygiene for all troops of the theater army logistical command; and the conduct of schools and special training activities in accordance with policies established by higher authority.

e. The determination of requirements for and procurement of medical, dental, and veterinary supplies within established policies and the technical supervision of medical supply installations including the storage, distribution, issue, and documentation of supplies; the supervision of medical maintenance and repair facilities; and processing of captured medical supplies.

f. The preparation of plans for the medical service of the communications zone based on command decisions and the supervision of the medical service throughout the communications zone, including the system of evacuation and hospitalization; methods of professional treatment and distribution of specialized officer personnel in order to maintain the highest standards of medical practice; troop preventive medicine programs for all localities in which troops are located, to include vaccination, inoculation, and other protective measures; the adequacy of the soldier's ration from the standpoint of health; the wholesomeness inspection of food to be consumed by troops; the medical aspects of the control and prevention of disease; the conduct of special investigations and surveys relating to the health of all troops; and the provision of adequate laboratory services.

g. The compilation of medical statistics pertaining to the theater army logistical command and for all theater army forces when directed.

h. The making of technical inspections and execution of such technical reports on matters pertaining to the medical service as are necessary to insure the proper execution of the plans of the commander.

i. Coordination with all Army and other agencies which is necessary for the accomplishment of his responsibilities.

j. Advising and assisting the Director of Civil Affairs in public health aspects of civil affairs activities, as applicable.

268. Relationships of Theater Army Logistical Command Surgeon

a. With Theater Army Surgeon. The theater Army surgeon does not command the theater army logistical command surgeon, but he does exercise general technical supervision over him and over his service as a whole. Theater army forces' operational plans for the medical service which affect the theater army logistical command are issued through command channels. However, the theater army surgeon makes such technical inspections and receives such technical reports as are necessary to insure the proper inspection of those plans.

b. With Subordinate Surgeons. The relationship of the theater army logistical command surgeon with the surgeons of subordinate commands of the theater army logistical command will depend in large measure on the policies of the commander, theater army logistical command. In all cases, however, the theater army logistical command surgeon directly supervises all medical service for which the commander, theater army logistical command, is responsible and exercises full authority over the technical aspects of medical service. Operational plans of the theater army logistical command for medical service which affect its subordinate commands are issued through command channels only. However, the theater army logistical command surgeon makes such technical inspections and receives such technical reports as are necessary to insure the proper execution of these plans.

(1) In preventive medicine, policies directed at the prevention and control of disease and injury are command decisions. In this regard, the theater army logistical command surgeon must coordinate and direct such technical activities as are undertaken in compliance with the policies and specific instructions of the commander, theater army logistical command.

(2) In treatment of the sick and injured, the theater army logistical command surgeon will prescribe the methods of treatment and preparation of patients for evacuation to be followed in subordinate commands of the theater army logistical command.

(3) Arrangements for the evacuation of patients are made through command channels, ordinarily by the Director of Services of the interested headquarters. However, the details are arranged between the theater army logistical command surgeon and the surgeons of the subordinate

commands of the theater army logistical command. This requires close coordination, particularly during periods of active operations.

c. With Field Army Surgeons. For relationships of the theater army logistical command surgeon with field army surgeons, refer to chapter 13.

269. Office of Theater Army Logistical Command Surgeon

There is no established organization for the office of the surgeon, theater army logistical command. The internal organization of the office is the prerogative of the surgeon subject to the approval of the commander, theater army logistical command. Its size and composition vary in accordance with the strength of the theater, the nature of the military operations to be conducted, and the specific functions assigned. Such functions depend in large measure on the extent to which administrative responsibility is decentralized to the commander of the theater army logistical command by the theater army commander and by the commander of the theater army logistical command to subordinate commands. The surgeon's office includes those subdivisions necessary to enable the surgeon to perform his assigned functions. In addition to the surgeon and his deputy, or deputies, there are various functional divisions. In order to reduce the number of individuals reporting directly to the surgeon or his deputy, certain of these divisions may be combined with the creation of appropriate subdivisions. A general outline of the functions performed for the surgeon by each of the principal divisions is as follows:

a. The administrative division performs the administrative activities of the surgeon's office; maintains a central file and message center; exercises security control within the office; maintains central supply, drafting, and publications facilities; conducts public information activities; and controls the transportation assigned to the surgeon.

b. The historical division maintains liaison with the historical sections of theater army headquarters and other appropriate agencies, collects and analyzes source material for medical histories, collects and prepares illustrative material, prepares preliminary historical accounts with complete documentation, and formulates policies for the collection and compilation of historical records.

c. The hospitalization division formulates hospitalization plans and policies; takes action to implement approved plans and policies; supervises the application of theater and theater army logistical command policies and procedures relating to hospitaliza-

tion; makes reconnaissances and acquires sites for fixed hospitals in locations approved by theater army headquarters; maintains liaison with appropriate agencies for the determination of hospital construction policies; approves design and layout plans of fixed medical installations; opens and closes fixed hospital plants when directed to do so by theater army headquarters; supervises and standardizes hospital administration; conducts special investigations and inspections pertaining to hospital administration and construction, initiating corrective action pertaining thereto; formulates policies governing convalescent care; and supervises the training of special personnel who are to assist in convalescent training.

d. The medical records and statistics division collects, processes, and analyzes sick and injured statistical data; develops statistical curves relating to changes of status and accumulations of hospitalized patients; maintains current medical service indices; and processes and maintains files on material for machine tabulation. The medical records division may be charged with compilation of medical records for all theater army forces.

e. The nursing division develops nursing policies, reviews nursing procedures, maintains records and reports on officers of the Army Nurse Corps, inspects and supervises the nursing service, reviews personnel policies with respect to the Army Nurse Corps, supervises nurse training and nurse welfare, and recommends the assignment of Army Nurse Corps personnel.

f. The operations division prepares and coordinates medical planning and, based on command decision, takes action to implement such plans; collects and analyzes operational statistical data; and develops hospitalization and evacuation requirements. Within this division, the medical regulator performs the functions of exercising technical control and supervision of the evacuation of sick and injured personnel, and maintaining liaison with appropriate agencies for rail, sea, and air evacuation. This division projects theater requirements for fixed hospitalization and evacuation based on present and past casualty experience data; formulates requirements for medical units to be included on the theater army logistical command troop basis; recommends the flow from the zone of interior to the theater of medical units on the theater army logistical command troop basis; and controls the allocation of medical units to major subordinate commands. It analyzes tables of organization and equipment and, based on experience in the theater, recommends changes that are required. It promulgates training directives for medical units within those policies established for theater army forces. It supervises medical service

technical training; and collects, evaluates, and disseminates intelligence of a medical military nature within the policies established by the theater army commander. It also assists the surgeon in the general inspection and supervision of all medical installations and all phases of medical service.

g. The personnel division formulates personnel policies; conducts personnel activities; effects personnel adjustments between major subordinate commands; and reviews recommendations for promotion, reclassification, awards, and decorations. It maintains records of medical service personnel by professional qualifications and military occupational specialties, and effects the readjustments of key personnel throughout subordinate commands in accordance with established policies of the theater Army commander.

h. The professional services division reviews and standardizes treatment procedures; supervises and evaluates the professional care of patients; recommends the assignment of key personnel; and supervises the activities of medical, surgical, and neuropsychiatric consultants including personal consultation service. It cooperates and participates in professional education programs and supervises the selection of personnel for professional training, supervises essential research in military medicine and surgery, and recommends physical standards for retention in the theater of officer and enlisted personnel in all branches of the military service in accordance with policies established by the theater army commander.

i. In coordination with the civil affairs organization, the preventive medicine division formulates public health and preventive medicine policies; plans disease control programs; and assists in the solution of problems of sanitation, nutrition, and insect control. It formulates policies and determines requirements for laboratory service, develops plans for military occupational hygiene, investigates outbreaks of communicable disease, and conducts epidemiological research. It determines equipment requirements for chemical, radiological, and biological casualties; and prepares training directives and coordinates the execution of such directives in the medical aspects of chemical, radiological, and biological defense.

j. The supply division conducts supply planning, supervises the operation of the medical supply system of the theater army logistical command, and formulates supply policies. It determines theater army requirements and excesses of military medical supplies in the event that this function is decentralized to the commander of the theater army logistical command by the theater

army commander. It secures medical supplies for military, civil affairs, and military government agencies within the policies established by the theater army commander. It technically supervises the distribution, storage, and issue of medical supplies for military and civil affairs agencies; and supervises the receipt, classification, storage, and distribution of captured medical supplies. It maintains stock control records, supervises the operation of medical supply installations (branch depots), and medical maintenance and repair activities. It supervises the operation of the spectacle fabrication and repair service.

k. The veterinary division provides professional advice and administrative assistance on matters relating to the veterinary service, formulates plans and policies for the operation of the veterinary service, and supervises the wholesomeness inspection of food to be consumed by troops. In coordination with other staff agencies, it accomplishes inspections of storage plants, depots, ice cream plants, and those aspects of transportation agencies as concern these products. It supervises the professional care of public animals and their environmental sanitation; and processes veterinary reports, returns, and records.

l. Normally, the senior officer of the Army Medical Specialist Corps on duty in the theater army logistical command will be designated the additional duty as advisor to the surgeon on matters pertaining to the Army Medical Specialist Corps.

270. References

For further information regarding characteristics and organization of the theater army logistical command see FM's 100–10, 100–15, and 101–10.

CHAPTER 15

MEDICAL SERVICE IN COMMUNICATIONS ZONE—EVACUATION

Section I. BASIC CONSIDERATIONS

271. General

Evacuation is one of the major tasks of the commander, theater army logistical command. Prompt and efficient evacuation is necessary in the theater of operations in order to prevent the adverse effect of unevacuated casualties on combat efficiency and to distribute sick and injured in available hospitals where they can receive the highest standards of medical care. Since it is a fundamental principle of the medical service to evacuate patients no farther to the rear than their condition or the military situation warrants, provision must be made throughout the evacuation system for sorting (triage). Normally, sorting takes place at each installation where there is a change in the means of transportation or where responsibility for evacuation is transferred. Patients who can be treated and returned to duty should be retained. Nontransportables should be retained, also, until such time as they can be moved without aggravation of their disabilities. It is stressed that the criteria for retention or evacuation is ever changing in light of patients on hand, installation capabilities, available evacuation means, and the military situation. The decision to retain or evacuate is ultimately an admixture of professional opinion and military medical considerations. Evacuation and hospitalization are twin considerations, and each depends upon the other for ultimate efficiency. Long-range planning and intimate coordination of these programs are necessary for maximum efficiency. In order to shorten the evacuation system and to contribute to an efficient evacuation pattern, the initiation and development of the fixed hospitalization program of the theater is normally instituted without delay.

a. The availability of sufficient transportation by ship, aircraft, train, or vehicle determines the extent and degree to which evacuation can be carried on. However, whenever the situation permits, first consideration will be given to evacuation by air. Except for ambulances, the medical service controls no other transporta-

tion means for evacuation from the combat zone to the communications zone and controls no transportation means for evacuation from the communications zone to the zone of interior. For additional means of evacuation, the medical service is dependent upon the particular Service (Air Force or Navy) controlling aircraft and ships or the command controlling trains or other forms of transportation. The theater army logistical command surgeon must therefore continuously forecast the requirements for land, rail, air, and water evacuation, so that coordination for its procurement may be effected sufficiently in advance of its needs.

b. Since patients are human beings and must be handled accordingly and since maximum use must be made of transportation, sufficient manpower and ambulances are necessary to effect, within a minimum period of time, the transfer of masses of patients from one type of transportation to another and from such transportation to hospitals.

c. Rapid means of signal communication are essential to any effective evacuation system.

272. Contrast With Combat Zone Evacuation

a. In the combat zone, evacuation involves the movement of patients in a fairly continuous flow directly to hospitals, normally by motor and/or air ambulance, while, in the communications zone, patients are moved intermittently in large masses by train, plane, ship, and vehicles. In the communications zone, patients are delivered to airfields and railroad stations in the vicinity of the hospitals since normally trains and planes cannot transport patients directly to hospitals. Therefore, on the arrival of planes and trains at such fields and stations, it is necessary to move the mass of patients to hospitals. For this purpose sufficient numbers of litter bearers and ambulances are required to unload and transport peak loads of patients expeditiously. The numbers of such litter bearers and ambulances required are dependent upon the volume of patients, traffic, and the distance involved. When relatively few patients arrive and the distances involved are not too great, general hospitals may be able to effect this transfer of patients with their organic means. However, evacuation between hospitals of the communications zone and to ports or airfields by trains, planes, or ships entails peak patient loads and a concommitant augmentation of litter bearer ambulance elements.

b. The location of field army hospitals in the combat zone has relatively little effect on the pattern of evacuation in that zone, while hospitals in the communications zone, when once established, fix the evacuation pattern. General hospitals established

without rgeard to rail or air service continue to jeopardize efficient evacuation as long as they are in operation. Although in many cases the need for fixed beds cannot always be delayed to await the determination of ideal evacuation patterns, general hospitals must be located, so far as practicable, with due regard to this factor. An efficient pattern contributes to the reduction of dispersion factors, the amount of movement of patients, the means required for the accomplishment of evacuation, better utilization of fixed beds, and selective care of certain types of patients.

Section II. EVACUATION FROM COMBAT ZONE TO COMMUNICATIONS ZONE

273. Responsibility

a. The evacuation of patients from the combat zone and their movement within the communications zone is a responsibility of the commander, theater army logistical command. The field armies of the combat zone must notify the commander, theater army logistical command, of their evacuation requirements, since he must provide the necessary means for surface evacuation and arrange with the theater Air Force/Navy for the provision of necessary personnel and aircraft/ships for air/water evacuation.

b. The coordination of patient evacuation between the zones of the theater is the responsibility of the theater army commander.

274. Holding Units

Normally, no level of medical service is responsible for the evacuation of patients beyond its rearmost medical installation. In the case of field army medical service, this rearmost unit may be either an evacuation hospital or a holding unit. It is a general principle that holding installations are initially established and operated by field armies in the vicinity of railheads and airfields utilized for evacuation of their patients to the communications zone. During the time holding units are established and maintained by a field army, they are considered medical installations of the field army and operate under the control of the field army commander. On the other hand, when responsibilities for holding units at a particular site have been taken over by the theater army logistical command, even though the installation may be within the combat zone, it is considered to be an installation of the theater army logistical command and is so operated and controlled. It is therefore necessary that units be made available in both the combat and communication zones for

the establishment of holding installations capable of properly performing their functions. As soon as practicable, however, the theater army logistical command relieves field armies of the responsibility for such installations.

275. Surface Evacuation

All means of surface transportation may be employed in evacuation from the combat zone to the communications zone—depending upon the geography of the theater. Where distances are great and railways are available, they constitute the most efficient means of surface transportation. Ambulance trains are allocated to the theater army logistical command, and their movement is controlled by the agency controlling railway movements. Development of plans for and the capability of using more than one means adds a great deal of flexibility where enemy interference is anticipated.

276. Medical Regulating

a. Close coordination must be maintained betwen the surgeon of the theater army logistical command and the surgeons of the advance and base logistical commands and the supported field armies. This coordination is effected through the establishment of a medical regulating section as a subdivision of the surgeon's office of these commands. The medical regulating section of the theater army logistical command surgeon's office ascertains from the medical regulating officers of the field army and advance logistical command(s) the number and location of patients within those commands awaiting evacuation and the number and location of available beds in the advance logistical command(s). From the base logistical command medical regulating section, the theater army logistical command medical regulating officer ascertains the number and location of patients awaiting evacuation to the zone of interior and the number and location of beds available to which patients may be evacuated from field army and the advance logistical command(s). Availability of this information enables him to allocate bed credits for the movement of patients from the field army area and the rearward movement of those patients awaiting evacuation from the advance logistical command(s). In addition, it enables him to schedule the evacuation of patients to the zone of interior. Based upon the patient evacuation requirements of the theater, arrangements are made through the theater agency having movement control of the appropriate type of transportation desired for the allocation of transportation necessary for the evacuation of patients from the field army, advance logistical command and theater of operations. Upon receipt of confirmed transporta-

tion commitments from the movement control agencies, the theater army logistical command medical regulating officer notifies the medical regulators of the subordinate and/or supported commands of the pertinent information regarding the movement which concerns them.

b. Necessary deviations from established policies, which are in no way prejudicial to the general pattern of evacuation, as outlined, are instituted by mutual agreement between the surgeons of the combat and communications zones whenever such deviations are considered to be the best interest of the patient and whenever they effect the maximum utilization of available facilities.

277. Air Evacuation From Combat Zone to Communications Zone

Air evacuation in the theater of operations is the responsibility of the theater commander. He directs subordinate commanders to assume their proper responsibilities in order to insure the efficient operation of this service and to make use of available air transportation for units.

a. The theater Air Force surgeon provides guidance as to the types of patients to be evacuated by air. The theater Air Force commander provides the necessary aircraft and personnel for the care and treatment of patients while in flight from the combat zone. Transport-type aircraft, equipped for the evacuation of patients, normally will be utilized for this purpose. Whenever possible, patients are delivered to airfields convenient to fixed hospitals unless military necessity requires that they be delivered elsewhere. When required to land at emergency airfields where there are no provisions for the reception of patients, temporary medical treatment is normally provided by the Air Force from local resources.

b. The field army surgeon and the surgeon of the advance logistical command are responsible for the selection of cases to be evacuated by air from medical installations under their respective control. It is essential that the medical regulators be cognizant of this information in order to coordinate surface and air evacuation. Within its area, each field army is responsible for the following functions:

(1) The establishment and maintenance of a medical holding facility, in the immediate vicinity of each airfield from which patients are to be evacuated and which is not provided with a holding facility by the theater army logistical command.

(2) Loading of patients on aircraft, when the Air Force has not established a casualty staging facility.

(3) The provision of additional equipment made necessary by the impracticability of property exchange with air evacuation units.

(4) Necessary liaison with the Air Force concerned.

c. It is highly desirable for Air Force medical service personnel to accomplish the final screening of patients prior to actual flight.

d. As in surface evacuation, the theater army logistical command surgeon daily allocates bed credits for use in regulating the evacuation of patients. It is mandatory that the closest coordination be established between the medical regulator of the theater army logistical command and the Air Force agency controlling the aircraft used in air evacuation to enable that agency to be constantly informed of air evacuation requirements.

e. The commander, theater army logistical command, is responsible for the reception of patients evacuated by air from forward areas and for the distribution of these patients to hospitals in the communications zone. Within his zone of responsibility, he is charged with the following functions:

(1) The establishment and maintenance of the holding units in the immediate vicinty of each airfield that may be required for the evacuation and/or reception of patients transported by air.

(2) The loading and unloading of patients on aircraft, unless the Air Force has established a casualty staging facility. If such is the case, the Air Force has loading and unloading responsibilities.

(3) The necessary coordination with Air Force.

278. Water Evacuation in Theater of Operations

This method of evacuation is utilized primarily in amphibious operations. For further information, refer to chapter 13.

Section III. EVACUATION TO ZONE OF INTERIOR AND INTRA-THEATER ARMY LOGISTICAL COMMAND EVACUATION POLICIES

279. Evacuation to Zone of Interior

a. Responsibility for surface evacuation from the theater to the zone of interior lies with zone of interior agencies. Air evacuation to the zone of interior is the responsibility of the Military Air Transport Service.

b. Specific responsibilities of the commander, theater army logistical command, are as follows:

(1) Establishment of movement priorities for patients transported by water or air.
(2) Transportation of patients to ports and airfields and for their loading into the appropriate transportation.
(3) Providing personnel to assist in the care and treatment of patients en route when directed.

280. Intratheater Army Logistical Command Evacuation Policies

As in the case of the combat zone, the theater army logistical command surgeon has certain established policies in regard to the hospitalization of patients while under his jurisdiction. These policies, known as evacuation policies, provide for the maximum length of time that any patient may remain at any communications zone installation. For further information in regard to such policies, refer to chapter 17.

281. References

For further information regarding evacuation, see FM's 8–35 and 100–10.

CHAPTER 16

MEDICAL SERVICE IN COMMUNICATIONS ZONE—HOSPITALIZATION

Section I. GENERAL

282. General

The theater army logistical command provides hospitalization for all patients originating in the communications zone and those received from the combat zone. The number and types of hospitals depend upon the location of the communications zone in relation to the zone of interior, the extent of the zone, troop strength of the theater, the nature of military operations, the character of hostile resistance, and the theater evacuation policy. In the communications zone, it is essential to anticipate hospitalization requirements and to begin construction in advance of the time that hospitals are to be occupied. Existing shelter in permanent buildings is utilized in the establishment of fixed hospitals whenever it is advisable. Otherwise, it may be necessary to provide accommodations by new construction or by using tentage. Hospitals are marked by the Geneva Cross in accordance with instructions of the theater commander.

283. Contrast of Hospitalization in Communications Zone With Combat Zone

a. General Points of Contrast. Hospitals of the combat zone are characterized by their mobility, those of the communications zone by their immobility. There will be a certain percentage of mobile hospitalization in the communications zone, but most of its hospitals will be fixed. In the combat zone, mobile and semimobile hospitals can be established in a matter of hours; they can be established in the field under other shelter without impairment of their functions; they can be prepared for movement in several hours after evacuation of all patients; they can be transported to a new location rapidly; and they possess the flexibility inherent in semimobile and mobile units. In absolute contrast, general and station hospitals in the communications zone, except when located in existing hospital plants, require many weeks for plant development to the stage in which they can function nor-

mally. They are dependent upon the availability of engineer technical assistance, labor, and supplies. They require extensive and proper shelter and utilities. After once having been established, preparation for movement after all patients have been evacuated can only be executed with great difficulty, time-consuming effort, and a major loss of fixed bed potential. Movement is largely dependent on whether or not fixed hospitals are sheltered under tentage, in prefabricated buildings capable of disassembly and reassembly, or in permanent buildings. The medical installations of the advance logistical commands must retain a degree of mobility which permits optimum responsiveness to the field armies they are supporting. This requirement dictates maximum utilization of mobile or semimobile medical units. General and station hospitals normally are employed in the base logistical command area and permanent type logistic complexes. Once established, the only possible flexibility existing in these fixed hospitals is measured by the number of expansion beds that are provided over and above its rated patient capacity. After development has once been started on a fixed bed installation, it is undesirable to change its location because of the time and expense involved unless major tactical, strategic, or logistical conditions dictate a change of location.

b. Time Lag. Field army hospitals can be established without appreciable time lag provided personnel, equipment, and transportation are readily available. In the communications zone, the extensive time lag existing between planned fixed beds and fixed beds ready for occupancy by patients requires long-range planning based on the best information available regarding the strategic, tactical, and logistical plans of the theater. Changes in the tactical, strategic, and logistical situations frequently occur between the initiation of construction and its completion. This requires considerable advance planning and coordination with command agencies in order to have fixed beds available to provide medical support at the proper place and within the proper time. Delay in the implementation of the fixed hospitalization program until the location of hospitals is ideal will increase the time lag necessary to develop such hospitals and will not provide the fixed beds required at the time needed.

c. Construction Standards. Normally, field army hospitals are not concerned with construction standards, except as they may be affected by the need for winterization, insect proofing, and protection from excess heat. These units can be placed in operation normally without dependence on extra construction, and may utilize permanent buildings whenever they are available.

However, in the construction of fixed hospitals, it is necessary to develop long-range design and construction standards and, in cooperation with the Corps of Engineers, to provide shelter and utilities. The supplies necessary for the construction of hospital plants are provided by the engineers. Normally, this is not necessary in the combat zone. At times it may be possible to locate fixed hospitals in existing hospital plants, if such plants are of sufficient size; to enlarge existing hospital plants; to provide shelter under tentage; to construct prefabricated buildings; or to utilize a combination of these methods. The principle to be followed is that the most adequate shelter for the purpose will be made available for hospitalization.

d. Volume. Field army hospitals preserve their tactical mobility by transfer of their patients to the hospitals in the communications zone. However, the hospitals in the communications zone are the rear termini of the evacuation system in the theater. They must be able to absorb a large volume of patients and, either by return to duty or evacuation to the zone of interior, reduce their patient load. The only reserve provided is by means of expansion beds which is an emergency measure. It is just as essential to provide for these emergency expansion beds of fixed hospitals as it is to provide a reserve in tactical operations.

Section II. TYPES AND ORGANIZATION OF HOSPITALS

284. General

Hospitals in the communications zone are classified and organized on the basis of bed capacity, type and extent of medical care performed, and the primary mission for which they are responsible.

285. General and Station Hospitals

a. General Hospitals.

(1) General hospitals are fixed installations designed to provide hospitalization of a definitive nature for all types of patients in a theater of operations. General hospitals receive patients from field army hospitals in the combat zone, station and field hospitals in the communications zone, and theater army logistical command troop units by direct admission. Normally, the majority of their patients come from the combat zone. As shown previously, general hospitals do not possess the capabilities and characteristics of field army hospitals. The size of the general hospital and the fact that it is de-

signed to be provided with adequate shelter emphasize these differences.

(2) The general hospital is composed of four physical elements: first, a professional complement comprising the professional personnel; second, an administrative complement comprising the personnel required for the performance of the administrative and housekeeping services; third, an element comprising all equipment including motor transportation, and fourth, a plant. Delay in the provision of any of these elements may adversely affect the timely opening of the hospital.

b. Station Hospitals. Station hospitals are fixed hospitals which normally serve a limited area to which assigned and routinely do not receive patients from the combat zone. They are organized and classified according to their patient capacity. They are established at locations in the communications zone where there is a sufficient concentration of military personnel to require local hospitalization. In the establishment of station hospitals, the same general problems arise as in the establishment of general hospitals.

286. Field Hospitals

Field hospitals are organized and designed to provide hospitalization facilities to areas of temporary troop concentrations and to establish and operate medical holding installations. In some cases they may be utilized to supplement general hospitals in order to temporarily provide hospitalization while construction for the general hospitals is under way. The field hospital is organized into three identical hospitalization units, each of which is capable of being established under tentage with a capacity of 100 patients.

287. Convalescent Centers

Convalescent centers in the communications zone are classed as fixed installations. However, regardless of where units of this type are employed, they are not charged to the theater as fixed beds. Normally, in the communications zone, these units are adjuncts to fixed hospitals and are not capable of providing definitive treatment comparable to that afforded by general hospitals. The convalescent center of the theater army logistical command has a normal rated capacity of 1,500 patients. However, this unit may be augmented when required to provide facilities for an additional 1,500 patients. This center provides convalescent facilities where patients may convalesce and receive

reconditioning training prior to return to duty. It receives patients from other hospitals within the theater of operations who do not need further hospital treatment but who require further reconditioning under medical supervision prior to return to a duty status. It is organized into a headquarters element, a clinical service, and a reconditioning service.

288. Hospital Centers

When practicable, hospital centers are formed by grouping two or more general hospitals and other supporting medical units under a Hospital Center Headquarters. This unit provides a command and administrative agency to effect a consolidation of these functions and to insure the maximum utilization of available medical service personnel and facilities. Through its centralized control the hospital center correlates and coordinates the activities of the attached hospitals and other medical units. Certain hospitals operating under the hospital center may be staffed and equipped to provide specialized treatment. Thus the operating hospital center affords the opportunity for increased specialization in the field of medicine indicated. This procedure provides the additional advantage of fully utilizing the skills of highly qualified professional personnel. The hospital center headquarters exercises control over the movement of patients to and from hospitals within the center. The extent to which convalescent centers are to be included in hospital centers depends upon the decision of the commander, theater army logistical command.

289. Holding Units

There is a requirement for facilities for the care and treatment of patients at each location where there is a major change in the mode of evacuation. At railheads, patients must be collected and held ready for the arrival of ambulance trains which continue evacuation. To attempt to move the number of patients required to fill an ambulance train at one time from scattered medical units to the entraining point requires an unnecessarily large number of ambulances, disrupts the normal operations of medical units, and frequently results in hardship for the patients while being held in ambulances awaiting the arrival of the ambulance train. The same considerations hold for airheads and ports of embarkation and debarkation. At the rear termini of air, rail, and water evacuation, means are required for the reception and distribution of large numbers of patients to the appropriate hospital facilities. When the route of evacuation

extends over long distances, it may be necessary to establish intermediate installations to provide rest for the patients while in transit. These installations are known as holding units and their primary function is to provide temporary shelter and emergency medical treatment to patients while they are awaiting transfer. Units utilized to perform such missions may be varied. The theater army logistical command is provided with field hospitals which are capable of establishing holding installations to care for patients while awaiting evacuation. Various other types of units such as separate clearing companies, medical holding companies, and even general hospitals, may be utilized to establish and operate such installations. The surgeon should normally select the most austerely staffed appropriate medical service unit available to perform a holding mission.

Section III. ESSENTIAL FACTORS INFLUENCING HOSPITALIZATION PROGRAM

290. General

There are certain planning considerations pertaining to hospitalization within the communications zone which apply more or less to all fixed hospitals in the communications zone. The extent to which these factors are to be considered for a given type hospital will vary primarily according to its size and organization.

291. Initiation and Development

It is manifest that the development of fixed hospitals in the communications zone must be initiated and completed without undue delay in order to provide the number of fixed beds by the time required. The proper development of a hospital plant for operation by the hospital unit is dependent upon engineer technical assistance, troops, and supplies. Therefore, timely planning and coordination with the Corps of Engineers is essential. Detailed plans and specifications of the various types of hospitals to be constructed in the theater must be included in this advanced planning. Engineer supplies must be made available at the time and place needed. Temporary improvisation in the communications zone such as is used in the field army area, while apparently offering a solution in a rapidly moving situation, merely delays the establishment of fixed hospitals, increases the movement and dispersion of patients, and locates hospitals so far to the rear that displacement is required with the advance. When lines of communication are extended, and ground evacuation is relied

upon, general hospitals should be echeloned forward as soon as practicable.

292. Hospital Plant

Obtaining the plant in which a hospital unit is to operate is one of the most difficult tasks facing the theater army logistical command surgeon. Hospital plants large enough to accommodate the rated patient capacity of a hospital unit are most desirable. The next choice is to find and alter appropriately existing permanent construction large enough to accommodate the rated patient capacity of the unit. Irrespective of its rated patient capacity, a fixed hospital is not designed to operate except as an entity. Splitting of the unit and operation in more than one plant is not desirable. Hospitals may have to be established under tentage or in prefabricated or other types of buildings. Advance planning must include requests for plant sites, and requests must be made well in advance. Construction which has been occupied for other purposes is difficult to obtain for hospitalization purposes. Therefore, it is necessary to earmark for hospital use plant sites while they are still in enemy territory, using for this purpose all available information from intelligence sources. Early reconnaissance must be made of all newly liberated territory by experts on hospitalization in order to determine those structures which are suitable for conversion into hospitals.

293. Utilities and Facilities

Since hospitalization and evacuation are so intimately related, hospitals must be located, so far as practicable, with due regard to the requirements for operation of an efficient evacuation service. They must be served by roads, rail, and if possible, by air. Suitable railway sidings must be provided near general hospitals if rail evacuation is to be utilized to maximum advantage. The availability of nearby landing fields for the use of aircraft engaged in evacuation is most desirable. In addition to satisfactory rail and air service, utilities, such as light, heat, power and sewerage are essential if the hospital is to function properly. The expansion of hospitals is dependent upon the availability of sufficient utilities.

294. Time of Availability

The time necessary for the development of the hospital program depends upon plant availability and upon the availability of engineer technical assistance, labor, and supplies to develop the plant to a stage in which the hospital is able to function. The

arrival of unit personnel and unit equipment and the provision of authorized transportation to the unit likewise have considerable bearing on their timely availability. Even under static conditions of peace in the continental United States, construction of hospitals is time consuming. In time of war in an active theater of operations where greater tasks for engineer troops and supplies exist, it is even more difficult. The time lag existing between planned fixed beds and actual beds will vary according to the above availabilities. Experience has shown that, on the average, 90 days will elapse between the initiation of construction or modification and the availability of the plant for operation as a hospital.

295. Location

General hospitals should be located as far forward as possible, with due regard to the tactical situation, in order to reduce evacuation requirements and to avoid the necessity of frequently "rolling up the lines of communication." However, hospitals should not be located so well forward that enemy action will prejudice their full and continued operation. The effect of nuclear warfare on centers of population may preclude the location of hospitals in centers of population and thereby will increase the requirements for hospital construction materials. Fixed hospitals must be located with due regard to the evacuation pattern both as to the evacuation from the combat zone and evacuation within and from the communications zone.

296. Expansion

A minimum of 50 percent expansion equipment is required in the theater for each fixed hospital. Plans should exist for the emergency expansion of every existing hospital plant. Provision of a reserve in hospital beds is as essential as it is to provide a tactical or strategic reserve of combat troops. It is to be stressed, however, that, without augmentation of personnel, hospitals are capable of maintaining expansion beds in operation for short periods of time only.

297. Displacement

Fixed hospitals in the communications zone are immobile and movement of them is inherently difficult. The loss of available bed potential and the time and effort required to effect their closure at one location and their reopening at another location make it inadvisable to displace them. In many cases, it is completely impossible to move the plant and equipment. As a result,

hospital units are moved; plants are not moved unless shelter is provided which is capable of disassembly and reassembly.

298. Station Services

Unless TOE's provide station services as an organic part of the hospital unit, trained signal, quartermaster, engineer, military police, finance, and postal detachments must be made available to meet these needs. Laundry service provided by the Quartermaster Corps for all hospitals is particularly essential.

299. Property Exchange

Provision must be made for additional supplies to be available to all hospitals in order to facilitate property exchange so that the mass evacuation of patients can function smoothly and without unnecessary delay.

Section IV. FIXED BED REQUIREMENTS

300. General

Fixed hospital bed requirements are computed in terms of the normal patient capacities of beds, and then converted to hospital units suitable for the theater. In common practice, the total number of fixed beds required in a theater of operations is stated as a percentage of the troop strength. For planning and calculation of such requirements, refer to chapter 17.

a. General and Station Hospitals. General and station hospitals are fixed hospitals and their beds are charged to the theater accordingly.

b. Field Hospitals. Field hospitals are charged to the theater as fixed beds except when recommended otherwise by the theater or theater army commander. Field hospitals are capable of versatile employment and unless they function in all respects as fixed hospitals, it is undesirable that they should be classed as such.

c. Convalescent Centers. Although convalescent centers are classed as fixed installations, these units are not charged to the theater as fixed beds. The reasons for this are obvious. These units are adjuncts to fixed hospitals and are not capable of providing definitive treatment comparable in any degree to that of general hospitals.

d. Combat Zone Hospitals. Evacuation hospitals, mobile army surgical hospitals, and convalescent centers of the combat zone

are not charged as fixed beds. Circumstances under which evacuation hospitals are employed in the communications zone in lieu of fixed hospitals are unusual and resorted to only as a temporary expedient.

301. References

For further information regarding hospitalization, see FM's 8–5, 8–55, 31–8, 100–10, and 101–10.

CHAPTER 17
MEDICAL PLANNING

Section I. EVACUATION AND HOSPITALIZATION PLANNING

302. General

Basic planning of the medical service for the communications zone normally involves three major considerations: first, plans pertaining exclusively to the medical service; second, plans requiring coordination with other services and agencies of the Army; and, third, plans involving joint action with the Navy and the Air Force. A fourth consideration is involved in combined operations with other Allied Powers. The medical service must operate as a part of the joint service team in order to accomplish its primary mission. Since the Army as a whole depends upon the medical service for those functions that it is qualified and required to perform, the medical service must depend upon other special and basic branches for those services and supplies provided by them. Plans prepared by the medical service or any command thereof and which depend upon the joint action of the Army, Navy, or Air Force for their implementation must be based on policies and directives of the theater or joint commander concerned. The effectiveness of short-range or current medical plans and their timely implementation is measured by their integration with long-range plans which have been approved by the commanders concerned.

303. Theater Evacuation Policy

a. The theater evacuation policy is a command decision made by the Secretary of Defense with the advice of the JCS and based upon the recommendations of the theater commander. Joint Chiefs of Staff plans and directed operations may specify the theater evacuation policy for theaters not yet established or for theaters which are to undergo a change in mission. This policy specifies which patients shall be evacuated to the zone of interior by designating a maximum number of days of allowable hospitalization within the theater. Patients who, in the opinion of responsible medical officers, cannot be returned to a duty status within the prescribed period must be returned to the zone of

interior by the first available and suitable transportation, provided such travel will not aggravate their disabilities.

b. Implementation of the theater evacuation policy commences with the date of admission to the first fixed hospital to which the patient is admitted and will include the estimated time required for medical rehabilitation and convalescence as well as active medical care. The periods which may be considered as applicable are 30 days, 60 days, 90 days, 120 days, or 180 days. Establishment of a short evacuation policy depends upon the availability of fixed beds in the zone of interior; and the availability of transportation means for the movement of patients from the theater and a concurrent movement of replacements to the theater from the zone of interior. The shorter the evacuation policy, the fewer number of fixed beds will be required for hospitalization within the theater. However, losses of trained personnel will be increased, resulting in a requirement for an increased flow of replacements from the zone of interior. Limited type operations, such as occur in landings on hostile shores, would necessitate evacuation policies of short periods, since beds would not be available until hospital construction has been completed.

304. Intratheater Evacuation Policies

a. The intratheater evacuation policies are the means of control whereby short-term patients are evacuated no farther to the rear than is necessary in order to avoid unnecessary loss of trained combat personnel and to provide more adequate treatment for selected patients. These policies in no way affect the theater evacuation policy, that is, the total fixed bed requirements for the theater. Evacuation policies within a theater are normally established for certain areas, certain types of medical installations, and certain classes of patients by specifying which patients shall be evacuated to the next higher level of medical care.

b. Certain flexible evacuation policies, useful as guides but varying with casualty rates and available beds, may be established for the combat zone. In addition, in airborne operations evacuation policies may be established for evacuation from independent airheads. All intratheater evacuation policies affecting combat zone operations are extremely variable depending on the tactical situation. It is mandatory that combat zone installations maintain their mobility and paradoxically at the same time retain all patients who can be rehabilitated for further service.

305. Hospitalization Planning

In hospitalization planning there are certain basic factors involved which are necessary to establish the hospitalization

requirements for a theater of operations. To compute bed requirements for any specific operation, it is necessary to establish first an evacuation policy, daily admission rate to hospitals, troop strength of the theater, accumulation factor, the dispersion factor, and any additional requirements not reflected in troop strength. The evacuation policy has been discussed in previous paragraphs of this section, whereas the other pertinent factors will be discussed in subsequent paragraphs.

306. Daily Admission Rates

The daily admission rate is a statistical device which expresses the number of persons admitted to hospitals or excused from duty for medical reasons on a per 1,000 troop strength basis. While it is a major planning tool employed by the medical service, it is also used by other agencies preparing analyses of Army experience data. Since the medical service becomes responsible for a portion of the losses occurring in active units, medical reporting and statistical analysis are but a portion of the gathering of operational data. It is necessary to understand the interrelationship of loss reporting and medical reporting.

a. Casualty Reporting. Two broad groups of losses have been established for casualty reporting and statistical purposes—casualties and nonbattle losses. Casualties include any person who is killed, wounded, injured, missing, captured, or interned as a result of action, including those dying later from wounds. Nonbattle losses include those caused by death, diseases, wounds, injuries, or missing not incurred in action. In addition, there is a group called administrative losses covering all other types of losses not included above. Specific regulations set forth precise definitions of each category and specify reporting procedures.

b. Medical Casualties. Of the personnel categorized above, the medical service is interested in those admitted to hospitals or excused from duty 24 or more hours for medical reasons. Within the classification of casualties this includes those wounded or injured as a result of action and those dying from such disability after admission to a medical treatment facility. Included in nonbattle losses are those suffering from diseases, wounds, and injuries not as a result of action, including those dying after admission to a medical facility. The number of persons admitted daily per 1,000 of troop strength is known as the daily admission rate. It may be expressed for a specific causative agent or by broad classification. In estimating projected admission rates, certain important factors must be considered, such as climatic conditions, disease prevalence, terrain, status of training of

troops, enemy capabilities, and the use of new and improved weapons by the enemy. Normally, admission rates are based on statistics accumulated over a period of time. For listing of these rates under various circumstances, see FM 101–10.

307. Accumulation Factor

Under a given evacuation policy, patients will accumulate in hospitals at a certain determinable rate depending upon the admission rate, the type of disability, and the average period of hospitalization. Based upon the experience in both World Wars and the Korean Conflict, these accumulation rates have been assembled into tables called accumulation tables. The accumulation factors given in such tables are based upon a daily admission rate of 1 per 1,000 troop strength and upon a specified evacuation policy (FM 101–10).

308. Dispersion Factor

a. At any given time a certain proportion of the theater fixed beds will not be immediately available to patients. This will necessarily require the application of a dispersion allowance. Under normal conditions, a 20 percent dispersion allowance is generally found to be adequate.

b. Factors contributing to a requirement for dispersion are as follows:

(1) The general practice of prescribing separate wards in hospitals for patients of different sexes, cases of contagious disease, and for cases requiring different types of treatment necessitates a safety margin in each ward since the proportion of the various classes will vary from time to time. Normally, a hospital is considered as operating at full capacity when it has reached 80 percent of its rated capacity.

(2) The daily admission and disposition rates vary from day to day and must be considered in allowing for an extra margin of available beds.

(3) At any given time a certain proportion of the authorized beds per theater may be packed for shipment within the theater. The greater the mobility of the troops, the greater becomes the necessity for displacement of operating hospitals and the greater the allowance required for dispersion.

(4) In an active theater where the location of troop units and concentrations are inconstant, it is necessary to

furnish hospital units even though such hospital facilities will not likely be fully utilized. The greater the dispersion of troops, the greater the dispersion factor.

(5) It is often necessary to establish operating hospitals to provide for troop concentrations in static phases or in the preliminary phase of active operations. Such hospitals may be poorly located with respect to an effective evacuation pattern after operations have begun. An inefficient evacuation pattern increases the dispersion factor.

(6) Because of the necessity for mass evacuation of patients and the means of transportation used, large numbers of patients ordinarily cannot be evacuated to any given hospital. Thus, a hospital with only 100 beds available for occupancy cannot receive a trainload of patients (approximately 180 patients).

(7) Any fixed hospital delayed by any cause from being placed in operation promptly after its arrival in the theater increases the dispersion factor. Tactical operations, however, may require that such units be held in reserve ready for movement.

309. Additional Fixed Bed Requirements

In addition to the number of fixed beds which are calculated on the basis of the troop strength of the Army in the theater, there must be added an allowance, when appropriate, for care of Navy personnel, Air Force personnel, merchant seamen, civilian employees, liberated and enemy prisoners of war, liberated United States and Allied nationals, and labor battalions of native personnel recruited in the theater and for which the Army is committed to provide medical attention and hospitalization. It is manifest that certain of these categories, i.e., personnel of liberated Allied nations and liberated and enemy prisoners of war, may not be evacuated to their native countries and may continue to occupy hospital beds for an indeterminable period.

310. Organization and Equipment Requirement Planning

a. It is not desirable under all circumstances and under all conditions to regard each single hospital as a completely rigid organization. In order to utilize professional personnel of fixed hospitals to their maximum, and at the same time to provide the maximum in professional service, it is often desirable to obtain a reasonable degree of flexibility by authorizing departure from the established tables of organization and equipment of

such units. However, neither the total number of personnel grades and military occupational specialties nor the provision of authorized equipment of such units on the troop basis are to be exceeded without approval of higher authority. Modifications, however, do not affect the troop basis. The departure from established tables of organization and equipment is a temporary expedient and is limited to the period of time and to the extent necessary to conform to the overall as well as the local requirements for fixed hospitalization in the communications zone. The effect of such a system is to reinforce certain units at the expense of other units for the purpose of making the most effective use of especially qualified personnel and plant facilities, and to provide for measures which enhance the specified treatment of certain categories of patients. Such modifications are particularly desirable in hospital centers in which certain of the hospitals may be largely restricted to specific categories of medical, surgical, and psychiatric patients. However, such modifications should not be limited to hospital centers but instituted wherever it is to the advantage of the medical service in the more efficient fulfillment of its mission. The necessity for such modifications is determined by the theater army logistical command surgeon and initiated by him with the approval of the commander, theater army logistical command.

b. A fundamental requirement for the medical service to properly perform its mission is the provision of sufficient bulk authorization personnel and sufficient medical units of the proper types. These units, organized and equipped under tables of organization and equipment, may be classified into those necessary for command, hospitalization, evacuation, preventive medicine, supply and maintenance, dental, veterinary, and miscellaneous. The net effect of underestimating medical troop requirements is to place the medical care of sick and injured patients in jeopardy. Once established, the troop basis cannot be altered except for changes which do not affect the overall troop strength and major equipment items. This results from personnel limitations and from the necessity for organizing and training medical units in the zone of interior many months before they are shipped overseas, and for providing the equipment required for such units in oversea medical supply installations in sufficient time. In formulating the medical troop basis for the theater army logistical command, the troop strength of the entire theater must be considered. Normally, this will include the troop strength of the theater army logistical command, the combat strength of the combat zone, theater army air defense command,

theater army civil affairs command, and theater army replacement training command. In addition, should the theater army logistical command be made responsible for fixed hospitalization for Air Force and Navy personnel, the strength of these forces must be considered.

Section II. COORDINATION IN PLANNING

311. General

All planning of Army Medical Service activities and operations requires early coordination with all those agencies of the Army and/or other forces involved. Such coordination not only insures that those agencies concerned are cognizant of medical plans, but permits the reaching of agreements between those agencies, thereby assuring the execution of final plans at the proper time and in the proper manner.

312. Coordination With Staff Agencies

All general staff agencies will be vitally concerned in the plans for medical service. It is especially important that early coordination be instituted and maintained with the following technical services:

a. The engineer service for technical assistance, engineer labor, and engineer supplies for construction of hospitals.

b. Transportation service for surface transportation of patients and shipments of medical supplies.

c. Signal service for signal communications necessary in the control of evacuation and other operative procedures.

d. Quartermaster service for quartermaster supplies, clothing, rations, and laundry service.

e. Ordnance service for ordnance supplies and vehicles for medical units.

f. Other special and basic branches which furnish necessary technical and administrative detachments for medical units.

313. Coordination With Navy and Air Force

The extent of the joint use of fixed hospitalization and joint participation in evacuation is determined by the theater commander, necessitating the coordination of essential details regarding evacuation by air with the Air Force and evacuation by sea with the Navy. Information regarding the location of airfields in relation to hospitals which have been or are to be established and the location of ports from which and to which patients will be

evacuated by sea will materially affect plans for the development of fixed hospitals and evacuation within the theater and to the zone of interior. Early determination of the extent to which the Navy and the Air Force are to provide air and water means for evacuation is of the utmost importance.

314. References

For further information regarding medical planning, see FM's 8–55, 31–8, 100–10, and 101–10.

CHAPTER 18
MEDICAL SUPPLY

315. General

a. The theater army commander is responsible for the development of supply systems which will insure adequate provision of supplies for theater army forces and, when applicable, for Navy, Air Force, and civil affairs activities. The extent to which supply functions are decentralized to the commander, theater army logistical command, is determined by the theater army commander. Depending on theater organization, the geographical features in the theater, and the nature of contemplated military operations, delegation of functions will be altered in order to meet the need for flexibility. It is normal for the commander, theater army logistical command, to handle the routine details of theater army administrative support directly with the designated zone of interior agencies.

b. The development of a medical supply system depends on conditions existing in the particular theater; for example, the system developed on a large land mass will differ from that required in ocean areas where islands and island groups are separated by great distances. The availability of shipping and the adequacy of harbor discharge facilities are other factors which influence the storage and distribution of supplies to the theater and to using agencies and materially affect the development of a medical supply system. In any case, the surgeon of the theater army logistical command closely supervises all matters pertaining to stock control and the operation of the medical supply system within the policies established in the theater.

316. Responsibilities of Theater Army Logistical Command Surgeon

The general responsibilities of the theater army logistical command surgeon and the supply division of his office are as stated in chapter 14. He is further responsible for coordinating and integrating medical supply planning with all other planning of his service. He is likewise responsible for coordinating his supply plans with other interested services. Knowledge of the overall theater troop basis and of long- and short-range opera-

tional plans are essential to the formulation of a proper supply plan.

317. Computation of Requirements

Theaters are authorized certain supply levels which represent the amount of supplies necessary for a specified number of days for a given theater troop strength. The supply level is maintained by periodic requisitions, taking into consideration the established theater level of supply, the theater stock position, special projects or authorizations, the time factor in obtaining supplies, and available experience as to expected rates of use. Requisitions are prepared and submitted to the zone of interior in accordance with requisitioning schedules established within the theater and with due regard to tonnage allocations, shipping priorities, and the projected buildup of troops in the theater.

318. Establishment of Shipping Priorities

Shipping to the theater may be controlled by the theater commander, theater army commander, or commander, theater army logistical command, depending on the organization of the theater and the delegated responsibilities. Supply services submit requisitions to the designated command headquarters, which in turn establishes a theater priority of shipment and forwards the requisitions, with the priority assigned, to the appropriate zone of interior agency.

319. Establishment of Medical Supply Installations

a. The determination of the number, type, location, and mission of medical supply installations to be established in the communications zone is a responsibiltiy of the theater army logistical command surgeon and is generally dependent upon the number of troops to be served, their locations, and the availability and accessibility of means for the storage and distribution of supplies by rail, water, highway, and air.

b. Medical supply installations in the communications zone are operated by table of organization units augmented, whenever possible, by local labor and by prisoner of war labor.

320. Local Purchases of Medical Supplies and Equipment

Local purchases of medical supplies in the theater of operations are desirable, wherever practicable, in order to save time and shipping space. However, any plan for local purchase must be carefully considered from the following standpoints:

a. The acceptability of foreign-produced materiel in lieu of that produced in the United States.

b. The effect of medical proficiency standards resulting from the use of equipment which requires special training to operate.

c. Difficulties in the procurement of repair parts and replacement items.

d. Difficulties in transfer of equipment when it becomes necessary to displace hospitals.

e. Problems of operating a medical supply system involving a large number of foreign-produced nonstandard items.

f. The possible effect of disrupting existing controls on civilian economy.

g. The time necessary for the production and delivery of foreign-produced equipment to our forces.

321. Dispersion of Hospital Unit Equipment

The practice of split-loading of medical service hospital unit equipment (unit assemblage) at zone of interior ports creates serious complications upon its receipt in a theater. The unit's assemblage must be complete in order to be functional. This requires that a hospital's unit assemblage, constructed in the zone of interior for shipment to the theater, *must* be loaded as a unit and discharged functionally complete at one port in a theater. Further, certain items, such as narcotics, alcohol, alcoholic beverages, precious metals, and fragile equipment, require special handling and must be protected while in port custody and en route. It is essential that organizational supplies and equipment received at ports and depots in the theater be checked against ship manifests and other shipping documents and any shortages noted. In the event that shortages in supplies and equipment are noted upon receipt of organizational equipment, the report of such shortage will be made immediately to the surgeon of the theater army logistical command. When organizational equipment marked for units is received by medical supply installations in the theater, it is segregated and retained intact pending issue to the unit. Shortages in organizational equipment for units are normally made up by the medical supply installations from available stock and immediate action taken to replace such shortages.

322. Distribution of Supplies and Equipment

Distribution is based on the need for supplies in certain supply installations as reflected in the stock status reports of these installations. The distribution of supplies and equipment to the

various medical supply installations is controlled by the theater army logistical command surgeon. It is necessary that one central agency be advised of the overall status of theater medical supplies in order to balance stocks in the various medical supply installations.

323. Stock Control

A stock control system is established to maintain adequate stocks of supplies and equipment in the various supply installations. The system is based on the maintenance of a stock record which reflects dues-in, dues-out, gains, losses, and available balances on hand together with a means of projecting future requirements. Appropriate medical supply installations submit, at designated intervals, reports which reflect their stock position. These reports are consolidated to give to the theater army logistical command surgeon the overall stock picture. Based on the reports, transfers between medical supply installations are directed by the surgeon and periodic requisitions are submitted through established theater channels to the zone of interior to maintain theater supply levels.

324. Issue of Supplies and Equipment

Medical installations and units submit periodic requisitions directly to their designated medical supply installations in accordance with established schedules for issue within authorized allowances. Requisitions for regulated items (items designated as requiring approval of the theater army logistical command surgeon prior to issue) and for items in excess of authorized allowances are submitted to the theater army logistical command surgeon for approval. Shortages on requisitions are reported daily by the medical supply installations to the surgeon, who takes appropriate action to correct the deficiencies.

325. Transportation of Supplies and Equipment

Normally, the performance of transportation services and operations is the function of the transportation intersectional service. However, the transportation available for the movement of supplies and equipment in a theater of operations is always limited. This results in the establishment of tonnage allocations and priorities for its use. Plans are based on developing the most effective use of available motor, rail, water, and air transport. Air or some other means of rapid transport must always be used when transporting deteriorating items such as whole blood and vaccines. Arrangements must be made for the trans-

portation of exchange items, such as litters, blankets, and the like. Timing of shipping is essential, since units must have in their possession the required supplies and equipment prior to supporting combat operations. Medical supplies, being usually of little bulk and thus "less than carload lots," are frequently lost for extended periods in transit. Ambulance trains provide a rapid and efficient method of transporting certain types of medical supplies and equipment from medical supply installations to forward areas. Freight cars may be attached to ambulance trains for this purpose. Marking of freight cars so used with the Geneva Cross is a matter for determination by the theater commander.

326. Special Operational Projects

In order to carry out a specific combat mission, it is frequently necessary to issue to units supplies and equipment in excess of the usual requirements. Such issues, unless foreseen and provided for, may serve to use up theater stocks and must therefore be reflected in theater replenishment requisitions.

327. Coordination With Other Services

Much of the equipment and supplies used by medical service units is procured, stored, and issued by other services. In order that needed supplies may be available when required, all current or projected needs must be coordinated with the services concerned. Continuing contact with all services must be developed early in supply planning in order that needs for and demands to be placed on the medical service may be properly coordinated by all concerned.

328. Property Exchange

In the process of patient evacuation, litters, blankets, pillows, splints, and like items of supply must accompany patients. In order that these items may not be drained from the units through which patients pass, an exchange system must be established. Wherever practicable, in the case of ambulance trains and hospitals, a direct exchange, item for item, is accomplished. In the event a direct item-for-item exchange is not practicable, trains, planes, or ships, on going forward, must carry replacement exchange items. Quantities of items to be authorized, in addition to normal supplies, for hospitals and other medical installations involved in property exchange are determined by the commander, theater army logistical command. In anticipation of combat operations, stocks of exchange items should be considered in all

supply planning. Provision for laundering or cleaning of certain exchange items must be planned in advance.

329. Refrigeration

Arrangements are made in advance to provide adequate refrigeration for such items as whole blood and vaccines. Personnel must be provided for the procurement, processing, storing, and distribution of whole blood to the combat elements. Mobile refrigerating units must be available in connection with the storage and distribution of whole blood. Hospital ships and ambulance trains require adequate refrigeration space for perishable items.

330. Local and Prisoner of War Labor

a. Local Labor. This source of labor should be exploited to the utmost. Language difficulties and the adaptability of the individuals available will largely determine how they will be used. Security and the probability of sabotage and large scale pilferage must always be considered, and the progressive screening of individuals employed must be effected.

b. Prisoners of War. This source of labor has been of great value in past operations, and the tasks performed have been as varied as the skills of the individuals. Equipment maintenance and repair functions may be carried on by skilled prisoners when adequately supervised. Since guards must be provided for prisoner of war labor, it is most economical to work prisoners in large groups. Security and the probability of sabotage and pilferage must always be considered in the employment of prisoners of war.

331. Supplies for Local Civilians, Displaced Persons, and Refugees

The Army may become responsible for providing medical care or assistance for these categories of persons. In the computation of supplies and equipment required to discharge this responsibility, full use should be made of all available intelligence data relating to the incidence of disease and the numbers of such persons for whom medical care must be provided. For further information, see FM's 41–5, 41–10, 100–10, and 110–10.

332. Supplies for Prisoners of War

The Army is responsible for providing medical care and treatment for all prisoners of war. In computing requirements for supplies and equipment needed to perform this function, full use should be made of all available intelligence data pertaining to

the incidence of disease among enemy forces and estimates of the numbers of such individuals for whom medical care must be provided. It is possible that the number of prisoners of war will be such as to require the establishment and equipment of special hospitals for that purpose.

333. Captured Supplies and Equipment

Medical supplies and equipment captured from the enemy are utilized by combat units or turned over to designated supply installations in the communications zone. This material is segregated and that of value is picked up in theater stock. Captured medical supplies of no value to the military forces will be disposed of in accordance with theater policies. Captured supplies and equipment are of particular value in the treatment of prisoners of war, since captured medical personnel are familiar with such equipment. Such a practice tends to conserve the medical equipment and supplies provided for our own troops. It is essetnial the adequate samples of all captured medical items be preserved and turned over to intelligence agencies for inspection and testing. In the event that large amounts of enemy medical supplies and equipment are captured, it is frequently expeditious to concentrate this material in one or more medical supply installations where it may be classified and issued.

334. Record Forms

Provision must be made for an adequate supply of record forms pertaining to the medical service. Timely arrangements must be made with the service charged with the supply of such forms if they are to be on hand when needed. Reproduction facilities and paper stock for this purpose must be available to the medical service at all times in case local reproduction of the forms becomes necessary.

335. Equipping of Ambulance Trains

Although organizational equipment is ordinarily provided for ambulance trains, the situation may call for the improvisation of such trains from available rolling stock. Items of equipment required for the medical care, messing, and comfort of patients on improvised ambulance trains are obtained from available stocks. Points of resupply for ambulance trains are established at terminals of ambulance trains and at points en route on long journeys.

336. Medical Equipment Expansion Units

This must be taken into consideration in initial planning in

order that the required supplies and equipment will be available when needed. In such planning, supplies and equipment furnished by other supply services and required by medical installations must be considered and timely requisitions placed on those services. As noted in the chapter on hospitalization, expansion equipment should be provided for every fixed hospital in the theater to the extent of 50 percent of its rated capacity.

337. Equipment Reserve

In theaters of operation, equipment is always subject to damage by enemy action or capture. In order that equipment so lost can be expeditiously replaced, an accessible reserve must always be maintained. This reserve may be in the form of individual items of storage stocks, or in reserve assemblies of organizational equipment. A combination of both is preferable.

338. Dispersion and Protection of Equipment and Supplies

In order to reduce damage to supplies and equipment by enemy action, it is advisable, so far as is consistent with requirements, to disperse stocks in various medical supply installations.

339. Special Supplies

Special drugs, vaccines, and other supplies may be required, depending upon disease prevalence in the area in which operations are being conducted. The requirements for such items must be anticipated in sufficient time to have the supplies available when required.

340. Inspection of Organizational Equipment by Units

Where a unit's assemblage such as those for general hospitals is to be stored in supply installations prior to shipment to operating sites, it is highly desirable that personnel from the unit which will eventually utilize the assemblage inspect it for completeness and markings. This procedure will insure that an assemblage is complete prior to shipment. When shipment of the assemblage is made to the site of operation, it is most desirable that personnel from the unit accompany it to insure its completeness at destination and to prevent splitting of the shipments in loading or during transit.

341. Medicinal Gases

Since a large amount of medicinal gases such as oxygen is required by medical installations in a theater of operations, it is essential that arrangements be made for the refilling of cylinders

without the necessity of returning them to the zone of interior. If oxygen cylinders are obtained in foreign countries, sufficient adapters must be procured to permit use of the cylinders with U.S. Army equipment.

342. Field Army Tonnage Allocations

In operations in which more than one field army is engaged, available transportation is allocated between each of the armies. This allocation is made in terms of tons of supplies that can be transported from the supply installations in the communications zone to those in the field army area or at railheads.

343. Unserviceable Medical Equipment

Unserviceable medical equipment which is beyond the organizational maintenance capabilities (1st and 2d echelon maintenance) should be evacuated to the supporting medical depot in the area.

344. References

For further information regarding medical supply, see FM's 8–55, 100–10, and 101–10, and the DA Supply Manual 8–1 and 5-series.

CHAPTER 19
VETERINARY SERVICE

Section I. THEATER ARMY VETERINARY SERVICE

345. Scope

Matters pertaining specifically to the veterinary service are discussed in this chapter, including theater army veterinary service, veterinary service in the combat zone, and veterinary service in the communications zone.

346. Mission

The mission of the theater army veterinary service is the conservation of military manpower as influenced by the wholesomeness of subsistence; by the control of zoonotic diseases; providing assistance to the preventive medicine program; and maintenance of the health of military animals.

347. Theoter Army Veterinorion

The theater army veterinarian, as assistant to the theater army surgeon in a staff capacity, supervises the operation and administration of the veterinary service in a theater of operations. He reports to or through the surgeon on all matters pertaining to the veterinary service in a theater of operations. When animals are used in the theater in support of military operations, he may, as technical advisor, deal directly with appropriate staff sections regarding the care, treatment, and management of military animals.

a. Professional responsibilities of the theater army veterinarian include inspections and recommendations in connection with the possible contamination of food supplies and food-producing animals with chemical, biological, and radiological agents; formulation of plans for the prevention and control of animal diseases transmissible to troops and to civil populations; formulations of sanitary standards for handling and storage of food products from the time of receipt or procurement in the theater until issue to troops; inspections and recommendations with regard to the sanitary operation of theater food processing establishments such as abattoirs and dairy products plants; the care and treat-

ment of all animal casualties; maintenance of technical supervision over veterinary units and personnel supporting animal service within the command; and establishment of suitable measures for the prevention and control of animal diseases and injury, and the provision of evacuation and hospitalization for military animals.

b. Administrative responsibilities of the theater army veterinarian include recommendations for the requisition, assignment, promotion, and estimate of future requirements for veterinary personnel; the training of veterinary personnel; preparation of information on veterinary matters that should properly be embodied in theater orders and directives, recommendations for the requisition, employment, and estimate of future requirements for veterinary units; recommendations concerning the procurement of animal transport and animal management within the theater; and determining requirements for veterinary supplies and equipment.

348. Relationships With Other Staff Sections

Close cooperation and coordination by the veterinarian, as a technical advisor, with certain other staff sections are necessary for the proper functioning of the veterinary service.

a. With the quartermaster the veterinarian coordinates the procurement and surveillance inspection of subsistence, locally procured or brought into the theater, for wholesomeness and quality; the sanitary standards for the operation of storage facilities and for civilian and military-operated food processing establishments; the procedures for physical examination and the health requirements for live animals purchased for food; the physical standards for military animals procured locally; and the management procedures to be employed in the utilization of military animals.

b. With the transportation officer the veterinarian advises with respect to the procedures for handling and inspecting subsistence to prevent contamination, spoilage, and uneconomical use of transportation, and the method for transporting animals and forage.

c. With the engineer the veterinarian advises relative to sanitary requirements for construction of abattoirs, subsistence storage facilities, food product processing plants, and facilities for the housing and hospitalization of animals.

d. With the G5 the veterinarian will confer and advise, and upon direction of higher authority will furnish technical assist-

ance and supervision and make available veterinary personnel and veterinary units to assist in—

(1) Rehabilitating civilian livestock industry.
(2) Establishing or reestablishing civilian veterinary service.
(3) Opening of veterinary colleges.
(4) Reestablishing livestock sanitary control regulations.
(5) Reestablishing veterinary drug, biological, and instrument supply.
(6) Implementing veterinary preventive medicine programs.

349. Office of Theater Army Veterinarian

As a staff officer of the surgeon, the veterinarian maintains his office as a section of the theater army surgeon's office. This office is organized by the theater army veterinarian as the needs of the service may dictate and may be composed of those assistants and subsections necessary for the proper fulfillment of the mission.

Section II. VETERINARY SERVICE IN COMBAT ZONE

350. Mission of Field Army Veterinary Service

The mission of the field army veterinary service is identical to that of the theater army veterinary service as described in paragraph 346.

351. Field Army Veterinarian

In accomplishing the mission of the field army veterinary service, the field army veterinarian specifically has the following functions:

a. Plans the requirements for the veterinary service in the field army.

b. Provides staff support for the veterinary service detachment teams used in the field army to include their assignment, arranges for their appropriate administrative attachment and logistical support, evaluation of their state of training, supervision of their technical operation, and determination of their effectiveness. The field army veterinarian, in the name of the surgeon, will exercise operational control over the veterinary service detachment teams not further assigned or attached to subordinate units.

c. Provides staff support for veterinary personnel assigned or attached to units employing animals and makes provision for the

assignment or attachment of veterinary treatment facilities or personnel as required. This includes planning for and staff supervision of veterinary supply procedures; evaluation of treatment and hospitalization; and preparation of evacuation plans. Normally the surgeon will delegate authority to the army veterinarian to exercise operational control over those veterinary care and treatment units not further assigned or attached to a subordinate command.

d. Obtains and evaluates statistical data relating to animal disease incidence in the field army area and in proposed operational areas.

e. Provides staff coordination for the utilization of field army laboratory service by units or personnel operating in the areas of responsibility described in *b*, *c*, and *d* above.

f. Provides technical assistance to the G5 section to facilitate conservation and utilization of veterinary resources captured or liberated by field army. This includes the possible use of food supplies and animals.

352. Veterinary Food Inspection Service, Field Army

a. The principles of veterinary food inspection service within the field army conform to the basic principles of the medical service.

(1) *Continuity.* The veterinary service must be capable of providing food inspection service continuously to support the forward flow of subsistence. This can be accomplished by thorough and continuous planning at field army level to determine if the veterinary means available are capable of inspecting the quantity of subsistence received, stored, or issued within its area of responsibility.

(2) *Flexibility.* Although veterinary service detachments are normally allocated on the basis described in TOE's, the principle of flexibility should not be compromised in the employment of veterinary service detachments with installations handling subsistence. The requirements for veterinary service within the field army will vary in accordance with the situation. Frequently, it is necessary to relocate veterinary units to adequately provide food inspection service in support of the logistical plan and tactical operation.

(3) *Controlability.* When so authorized by the field army commander, normally the army surgeon authorizes the

army veterinarian to exercise operational control over the veterinary units in the field army not further assigned or attached to subordinate units. The operational control is exercised through headquarters, veterinary service detachments, which retain administrative control over assigned subordinate veterinary detachments. The control of veterinary service within the field army is retained by the medical service and only when it is impractical to exercise centralized control because of the tactical situation, should this principle be compromised.

(4) *Simplicity.* The conduct of veterinary activities will be within the specified capability of the unit. Specialized food inspection procedures (analytical determinations) will be accomplished by units or installations designated to, and capable of, performing these missions.

b. During the planning phase of field army operations, the field army veterinarian must consider the following factors when planning the veterinary service requirements:

(1) Geographical size of the field army area and the type of terrain over which the field army is operating.

(2) Possibility of providing veterinary food inspection service for locally-procured subsistence.

(3) Quantity of subsistence handled at any one point per day.

(4) Number and location of quartermaster subsistence installations.

(5) Provision of inspection service for task forces of varying sizes.

(6) Type, availability, and location of subsistence storage facilities.

(7) Climatic conditions in relation to food storage.

(8) Use of chemical, biological, and nuclear weapons by the enemy or our own forces.

353. Veterinary Animal Service, Field Army

a. General. The use of animals by United States forces in the support of military operations is limited to special situations requiring a minimum of veterinary support; however, the use of veterinary animal service units in support of allied forces is still a potentiality which warrants inclusion of animal care and treatment doctrine within this chapter. Furthermore, the control of animal diseases transmissible to man is in no way simpli-

fied by the reduction of military animals within the field army. On the contrary, zoonotic disease control is more difficult when consideration is given to the fact that all types of animals infected accidentally or intentionally are sources of disease which can have a direct influence on the health of the command. Therefore, the army veterinarian must plan for the utilization of the means available within the field army to control zoonotic diseases and to support animal units and to determine what augmentation will be needed.

b. Zoonotic Disease Control. The army veterinarian utilizes the veterinary personnel assigned to field army to provide limited zoonotic disease control within his area of responsibility. This consists of planning, in coordination with the G5, for the immediate quarantine and examination of captured or liberated animals and making recommendations concerning their disposition; examining domestic and wild animals suspected of rabies or other highly communicable diseases; collection and submission of material to the medical laboratory for evaluation; and making plans and recommendations for the control of animal traffic to prevent the spread of zoonotic diseases to man or other animals.

c. Care and Treatment of Military Animals. To accomplish the animal care and treatment mission of the veterinary service, a system for evacuation, care, and treatment of animal patients is organized in order to channel the sick and wounded animals from using units to their final disposition within the field army service area. Laboratory facilities required for animal disease control are provided by the medical laboratory. The forward termini of the field army veterinary service are at the unit veterinary dispensaries and unit aid stations, and the rear termini are at the veterinary hospitalization units in the field army area. In the care, treatment, and evacuation of animal patients, their disposition at all levels in the evacuation system is based on the military economy of animals. A point may be reached at which extended evacuation is not justified. There must be a constant evaluation of animal patients at all points in the evacuation system to determine the manner in which these animals should be handled in the light of military necessity and animal economy. The disposition of animal patients may be one of the following:

(1) Return to duty with their organization, when such disposition is feasible.

(2) Evacuation of animal patients requiring further treatment to rear area treatment facilities.

(3) Destruction of animals not economically salvageable.

d. Unit Veterinary Service. Veterinary animal service is furnished to units which utilize animals by the attachment of veterinary personnel trained in animal care. The number of personnel attached will vary in accordance with the unit organization and function. They are commanded by the senior veterinary officer assigned. The veterinary personnel establishes a treatment station, provides care and treatment, accompanies the supported unit in all tactical operations, and functions under the immediate control of the unit commander.

e. Division Veterinary Service. This consists principally of the evacuation of animal patients from the combat elements to treatment stations established in the division area. Normally, the evacuation is carried out by veterinary personnel trained in animal care. It is the responsibility of the veterinary personnel to provide for emergency care and treatment of animals during movement, though no treatment other than emergency treatment is performed.

f. Evacuation Procedures. It is imperative that the veterinary personnel, trained in animal care, establish and maintain contact with the forward treatment stations. It is the responsibility of the senior veterinarian of the evacuation element to make plans for the veterinary support of forward units based upon their anticipated employment. The veterinarian of the forward unit must know the location, strength, and composition of the veterinary elements which will support and supply his veterinary section, and he must keep the supporting veterinary unit informed of the location of the treatment station or stations.

g. Corps Veterinary Service. Veterinary service in a corps, when service as part of a field army is normally minimal, is provided by the field army. When operating as an independent or separate corps, all necessary elements of the veterinary service are assigned to the corps in order that adequate veterinary service can be provided for the performance of its mission. Veterinary operations then become identical to those of the field army.

h. Field Army Veterinary Service.

(1) The veterinary animal service in the field army consists generally of veterinary personnel, trained in animal care, and veterinary small animal hospital detachments. The allocation and operation of these units and personnel are dependent upon the animal population, terrain, etc.

(2) All captured animals, because they present a potential if not an actual hazard to health, must be given physical

examinations by veterinary personnel. Thus, this throws an additional load on all the veterinary personnel within the army area, as it generally necessitates separate treatment and evacuation procedures. In addition, quarantine regulations for captured animals and the veterinary supervision incident thereto increases veterinary personnel requirements. Where the basic veterinary service must be augmented to care for these animals, the reinforcement may be provided by using trained veterinary personnel, as may be required, to accomplish the mission of the veterinary service. This factor must be considered when preparing the veterinary plan.

Section III. VETERINARY SERVICE IN COMMUNICATIONS ZONE

354. Mission of Theater Army Logistical Command Veterinary Service

The mission of the theater army logistical command veterinary service is identical to that of the theater army veterinary service as described in paragraph 346.

355. General Consideration of Theater Army Logistical Command Veterinary Service

To show how staff veterinary officers are assigned to major commands within the communications zone, it is necessary to briefly describe the evolution of the communications zone. Initially, in an amphibious or airborne operation, all logistical support units and installations are under the command of appropriate combat commanders. A logistical command headquarters and certain communications zone-type troops are usually attached to the task force in order to provide the force commander with the necessary means to accomplish his logistical support mission and to provide continuity of logistical effort, during the transition of rear areas from army to theater army logistical command control. The TOE for a logistical command does not provide for a staff veterinary officer within the medical section; therefore, it is frequently necessary to augment the medical section by assigning a veterinary officer. Normally, all logistical activities in the objective area, including the operation of beaches and ports, are initially performed under the supervision of the chiefs of the field army technical services, utilizing the attached communications zone-type troops in addition to field army service troops.

During this phase, veterinary activities within the objective area would be under the supervision of the field army veterinarian. When the attached logistical command arrives in the objective area, it is normally given responsibility for the operation of beaches, ports, and other specific installations which in later phases become a part of the base section of the theater army logistical command. Frequently, a logistical command becomes the nucleus for the organization of headquarters, theater army logistical command; therefore, the presence of a veterinary officer in the medical section will facilitate the transition of veterinary activities from field army to theater army logistical command control when that command becomes operational in the objective area.

356. Organization of Theater Army Logistical Command Veterinary Service

The organization of the theater army logistical command veterinary service considers geographical, political, tactical, and strategic factors. The organization is flexible to allow for changes in requirements caused by strategic, logistical, and tactical considerations. Because of these requirements, no standard or type organization has been established. Personnel for the veterinary service in the communications zone are provided as the situation requires within limits established by the commander, theater army logistical command, and higher echelons. Normally, a staff veterinary officer is assigned to the theater army logistical command surgeon's staff to provide the necessary staff support for the varied veterinary activities within the communications zone.

357. Theater Army Logistical Command Veterinarian

In accomplishing the mission of the theater army logistical command veterinary service, the theater army logistical command veterinarian has the following responsibilities:

a. To protect the health of troops by insuring that food products of animal origin which are procured in the communications zone are from sanitary sources and that these products are otherwise safe and suitable for human consumption.

b. To protect the economic interests of the Government by determining that the food products procured in the communications zone for troops comply with contractual requirements in regard to type, class, grade, packaging, and delivery; and after procurement, by determining that these products are handled in a manner which will minimize losses through spoilage or deterioration.

c. To inspect for condition, as may be directed by higher authority, all foods of animal origin shipped into the communications zone, at time of transshipment, during storage, and at time of issue, for the purpose of detecting deterioration and to insure the issue of products which are sound.

d. To inspect for sanitary condition, quality and packaging, as may be directed by higher authority, foods of nonanimal origin procured in the communications zone; and to continue surveillance of this class of foods, irrespective of source, until time of issue.

e. To initiate and apply measures to insure the health and physical efficiency of military animals.

f. To evacuate, care for, and treat sick and injured military animals.

g. To prepare, transmit, and preserve veterinary records and reports relating to military animals and food products.

h. To assist the civil affairs organization in civilian veterinary medical activities in the area under military control.

358. Veterinary Food Inspection Service, Communications Zone

a. Upon the establishment of a communications zone, it becomes the link between the zone of interior and the combat zone. It provides an area in the theater of operations for operation of supply, evacuation, transportation, and other administrative services in support of the combat zone. It, therefore, becomes the predominant area for the discharge of veterinary food inspection responsibilities and duties. These responsibilities are discharged through the use of veterinary service detachments and organically assigned veterinary personnel. The veterinary food inspection service in the communications zone normally is centralized under the control of the theater army logistical command surgeon except for veterinary service organic or attached to transportation terminal commands.

b. The major quantity of subsistence utilized in the theater of operations will be received through the ports and over the beaches operated by the Transportation Corps. Therefore, these installations are the initial inspection points for subsistence received in the theater. Veterinary food inspection at ports of entry is designed to prevent subsistence not fit for consumption from entering into the normal supply channels. Condemnation of unfit subsistence at this point will also result in an economy of transport means available for port clearance. In those situations where a headquarters transportation terminal command is

operating one or more subsidiary installations handling subsistence or the inspection requirements of the terminal command exceed the capability of the organic veterinary section, it is necessary to augment the organic veterinary section by the attachment of veterinary service detachments.

c. Veterinary food inspection service in the communications zone forward of the inspection conducted at ports or beaches will be accomplished by veterinary service detachments (see TOE 8–500) under the centralized control of the theater army logistical command surgeon. Normally the surgeon authorizes the staff veterinarian to exercise operational control over veterinary service detachments not further assigned or attached to subordinate units. When the number of veterinary service detachments present requires reduction in span of control, operational control is exercised through headquarters veterinary service teams. The number of veterinary service detachments required to accomplish the theater army logistical command food inspection mission (in addition to those detachments for terminal command augmentation) can be calculated by determining the average daily tonnage of quartermaster class I supply cleared from ports of entry and shipped to Quartermaster installations. Normally the large veterinary service detachment or multiples of this detachment, augmented as required by the smaller detachments to bring inspection capability into agreement with inspection requirements, are used to provide food inspection service in the communications zone. Utilized in this manner the theater army logistical command veterinary food inspection service achieves maximum flexibility. Individuals may be used to provide food inspection service to the supported units or varying sized inspectional units may be formed from the detachments as the situation requires. This procedure permits timely readjustment of personnel to bring inspection capability into agreement with inspection requirements. Administrative requirements are reduced when the large detachments are used in lieu of many smaller detachments releasing more personnel for inspectional duties.

359. Veterinary Animal Service, Communications Zone

a. Under all conditions, it is necessary to establish a program for the prevention and control of animal diseases that might affect the health of the troops or civilian population. To accomplish the control of the zoonoses, the communications zone is subdivided into areas. When subdividing the communications zone, consideration is given to the indigenous domestic animal population, obstacles to animal trafficability such as rivers and moun-

tains, roads, rail nets used for movement of animals, direction of flow of rivers and streams, prevailing winds, prevalence of wild animals, and routes followed by migratory wild life. Normally, veterinary animal personnel are assigned an area of responsibility for the control of zoonotic diseases. In addition, the zoonotic disease control plan is coordinated so that veterinary personnel organic to Transportation Corps units and civil affairs units carry out their zoonotic disease control programs in accordance with the theater army logistical command plan. Technical medical channels are used for reporting and transmitting data to the theater army logistical command veterinary.

b. Unit veterinary service for theater army logistical command units whose animal strength justifies such service is provided by the attachment of veterinary personnel, trained in animal care. Dependent upon the situation, veterinary small animal hospital detachment teams are provided for care and treatment of animals which have been either evacuated from the combat zone or disabled in the communications zone. These units are designed primarily to provide treatment and to relieve the field army veterinary small animal hospital detachments of animal patients. This constitutes the veterinary animal service in the communications zone. Evacuation of animals from the combat zone and within the communications zone is performed by veterinary personnel. Since animals are not evacuated to the zone of interior, the veterinary hospital facilities in the communications zone provide the rear termini of the animal evacuation system.

CHAPTER 20
DENTAL SERVICE

Section I. GENERAL CONSIDERATIONS

360. Mission

The dental service in the theater of operations is a component of the Army Medical Service and as such shares the responsibility for the preservation of the strength and effectiveness of the command. Its mission is accomplished by the establishment of dental services throughout the theater in a manner designed to provide dental treatment and prevent excessive evacuation to the rear of individuals requiring emergency or routine dental care.

361. General Responsibilities

The general responsibilities of the dental services are—

a. To furnish emergency and routine dental care for members of the command and others as may be designated by the commander.

b. To conduct dental inspections of the command when necessary to determine requirements and priorities of dental care by means of classification.

c. To recommend measures within the field of preventive dentistry designed to reduce the incidence of dental disease and supervise the training of all personnel in matters of oral hygiene.

d. To coordinate the dental service with other services of the command.

e. To develop, prepare, and recommend plans, policies, and procedures for the operation of the dental service of the command.

f. To prepare, consolidate, and evaluate routine and special dental reports and records for the information of the command and higher authority, and for use in the planning and operation of the dental service of the command.

g. To train all personnel assigned to the dental service.

h. To make provisions for the care, safekeeping, maintenance, and determination of requirements of equipment and supplies utilized by the dental service.

362. General Doctrines

a. Commanders at all levels are responsible for the provision of adequate and proper dental service for all military personnel of their commands and such other persons designated by the command or by higher headquarters.

b. Dental service should be so organized and deployed to render the maximum service with the least inconvenience to the units receiving dental care. This consideration includes the factors of time, distance, accessibility, and transportation.

c. Emergency dental treatment must be available to all troops at all times.

d. Routine dental care can be supplied only when commanders make their personnel available to receive it.

e. Dental facilities should be disposed so as to render maximum service to the greatest number.

f. Dental patients should be treated as far forward as possible to allow rapid return to their units with minimum burden imposed upon the evacuation system.

g. Dental surveys will be conducted when necessary to insure proper priorities for dental care of individuals and units. Followup treatment must be continuous to avoid deterioration of the dental health of the command.

h. Maximum efficiency and economy of utilization of dental personnel will result from an organization for dental support which possesses flexibility and mobility. An organization of this type can provide for the exploitation of opportunities to accomplish the dental mission wherever and whenever the situation permits.

i. Treatment of patients with dental disease or injury must be continuous during their evacuation. At each medical installation from front to rear, patients should be examined and given such dental treatment as is necessary.

363. Supply

The technical service staff officers are responsible for specific items of supply. The staff dental surgeon does not have the responsibility for the procurement, storage, issue, and distribution of supplies. The surgeon of the command has these responsibilities, and, therefore, the dental surgeon must furnish the surgeon with the requirements of the dental service for items of medical supply. The dental surgeon may be called upon to

recommend the control of certain dental items which have been declared critical and to authorize their release to certain dental units. He is responsible for evaluating the quality and serviceability of items of dental supply and to make recommendations relative to captured enemy dental supplies.

Section II. STAFF DENTAL SURGEONS

364. General

The dental surgeon is a special staff officer and represents the dental service. He is an officer of the Dental Corps and, as all special staff officers, is under the direct command of the commander on whose staff he is assigned. Normally, dental staff officers are assigned only at field army level in the combat zone. However, when dental service units are assigned or attached to a medical group, a dental officer will be designated as dental surgeon of the medical group and will assist the field army dental surgeon in the discharge of his responsibilities for TOE dental units which have been assigned or attached to the groups. In this instance, the medical group commander places these dental units under the operational control of his designated dental surgeon. In the communications zone, staff dental officers are assigned to the theater army logistical command headquarters and to the headquarters of its subordinate commands. Normally, a dental staff officer does not appear on the staff of any of the other major commands of the communications zone, but one is assigned to the headquarters of theater army forces. A dental surgeon may or may not be present on the staff of the theater commander. As staff officers their duties are similar in nature to those of all special staff officers and pertain to advising, planning, and supervising matters pertaining to dental service. Specifically, they—

a. Furnish information, estimates, and recommendations on matters pertaining to dental service to the commander and staff.

b. Assist the general or operational staff by preparing plans, orders, and reports which pertain to the dental service.

c. Exercise technical supervision of the dental staff section and the dental activities of subordinate units.

d. Establish liaison with the dental staff sections of higher and adjacent headquarters.

e. When so authorized by the commander, exercise operational control, in the name of the commander, of all units performing specifically a dental mission which has not been assigned or attached to subordinate commands.

f. May, at the prerogative of the commander, be assigned dual functions of staff officers and commanders of dental units. However, their primary duty will be that of staff dental officer.

g. Plan and supervise the training of the dental staff section of the headquarters, and in coordination with the G3/Director of Plans and Operations, assist in planning and supervising the dental training within the command.

365. Dental Surgeon and Commander's Staff

The dental surgeon functions under the supervision and direction of the Chief of Staff and the general or operational staff in discharging his duties as a special staff officer. So far as the dental surgeon is concerned with any of the following functions he deals with the general or operational staff sections as follows:

a. G1 Section/Director of Personnel.

(1) Dental records, reports and returns.

(2) Personnel matters pertaining to the dental service.

(3) Discipline, law, and order as applied to the dental service and the morale of dental personnel.

(4) The treatment and utilization of prisoners of war in dental facilities.

(5) Morale of the command as affected by dental service.

(6) Interior management of the dental service as administrative methods affect its efficiency.

b. G2 Section/Director of Security.

(1) Evaluation of information of a dental nature as it pertains to intelligence and its interpretation.

(2) Information pertaining to intelligence matters derived from prisoners of war.

c. G3 Section/Director of Plans and Operations.

(1) Information on the tactical situation as it pertains to the present and future employment of combat troops.

(2) Arrival and departure of dental and other units.

(3) The training of dental units.

(4) The instruction of the command in oral hygiene.

(5) The assignment and allocation of dental units to subordinate units of the command.

d. G3 Section/Director of Security. Information regarding rear area defense and security measures.

e. G4 Section/Director of Services.

(1) Dental care of the command.

(2) Requirements for transportation to move dental personnel and equipment.

(3) Augmentation of the dental service of the command by a higher headquarters (in coordination with the Director of Plans and Operations).

(4) Shelter for dental units, construction of facilities when required, the allocation of real estate, and the furnishing of necessary utilities.

f. G4 Section/Director of Plans and Operations.

(1) Requirement for, and disposition of, dental units.

(2) Movement of dental units, including their control.

g. G4 Section/Director of Supply and Maintenance.

(1) Supply of dental units.

(2) Maintenance of dental supplies and equipment.

h. G5 Section/Director of Civil Affairs.

(1) Coordination in matters pertaining to dental care that may be afforded the civil population.

(2) Coordination of dental supply requirements for civil population.

366. Dental Surgeon and Special Staff

The dental staff officer may consult to a varying degree with all special officers in the headquarters, but his main area of coordination lies within the scope of the activities of the surgeon. Some of the major items requiring the coordination of the dental surgeon and the surgeon are—

a. Requirements of dental units for dental supplies and equipment, the designation, control, and release of critical items of dental supplies and equipment. Local procurement of dental items of supply. Maintenance and inspection of dental items of equipment.

b. Dental service to medical units not having organic dental personnel.

c. The evacuation and hospitalization of dental patients.

d. Dental treatment furnished by the dental service of medical units.

e. Assignment of dental personnel to medical units.

f. Priorities for dental treatment of patients in hospitals who are to be returned to duty.

Section III. ORGANIZATION AND OPERATION

367. General

The organization of the dental service of a theater of operations is based on two principles: (1) the assignment of dental personnel to TOE units where there normally can be expected to exist a steady available dental workload, thereby permitting dental personnel to be fully employed at all times, and (2) dental support to all other organizations, whose strength does not justify the assignment of dental personnel or whose mission does not allow consistent availability of personnel for dental treatment during certain periods of operations, is furnished by dental TOE units under centralized control of a higher headquarters. From the first principle is evolved a *unit* dental service and from the second principle is evolved an *area* dental service.

368. Organization

a. Unit Dental Service. Unit dental service consists of the dental services of divisions, hospitals, and certain other medical units which have dental operating personnel assigned as part of the TOE of such organizations. In most instances these dental services which are organic to such units have a direct support type of mission to that specific organization.

b. Area Dental Service. Area dental service consists of TOE dental units of the 8–500-series which are under the operational control of the staff dental surgeons of field armies and subordinate commands of the theater army logistical command. They provide the bulk of area dental support and normally are given general support or reinforcing type missions.

369. Operation

a. Any organization for dental support to be effective must incorporate flexibility, which permits rapid displacement, and centralized control.

b. The operation of the dental service is dependent upon—

(1) Dental surveys which furnish accurate information as to the status of the dental health of all subordinate elements of the major commands.

(2) The determination, from such dental surveys, of those units which are in greatest need of dental treatment.

(3) Information received from the staff of the major headquarters as to the present and future availability of all subordinate units for dental treatment.

(4) The selection and establishment of priorities for dental treatment to those units available for treatment.

(5) The dispatch of the available dental means to such units which have been given priorities for treatment.

c. TOE dental units are under the command of the major headquarters to which assigned, with the operational control of such units designated by the commander as a function of the dental surgeon. The dental surgeon designates missions to dental units in support of troops located anywhere within the command boundaries. The control remains centralized but the operation is decentralized and becomes the responsibility of the dental unit commanders, who, through the manipulation of subordinate dental units and teams, can exploit all opportunities to furnish dental support to units and personnel located within their zones of responsibility.

d. Zones or areas of responsibility may be designated in several different ways by commanders of major headquarters. One method of designating each zone is by the adaptation of zones created for another purpose but published as an overlay in current orders. An example of such an overlay adaptable for the designation of areas is the area damage control overlay.

e. The centralized control over dental units by the dental surgeon permits him to shift dental means from one location to another as the need arises. Such need would arise as a result of the movement of troop units from one location to another, the withdrawal of a unit from combat for rest and rehabilitation, or the designation of certain units to constitute a reserve force.

Section IV. DENTAL SERVICE IN COMBAT ZONE

370. General

Within the combat zone the basic principles of dental support founded upon the characteristics of dental service apply. These basic principles are—

a. Flexibility of organization.

b. Mobility of dental units.

c. Centralized control.

d. Decentralized operation of the dental service.

e. Maximum economy of dental personnel.

f. Continuous emergency treatment.

g. Routine treatment supplied whenever and wherever commanders indicate that their personnel are available for such care.

371. Organization

Army group and corps headquarters are primarily tactical units. Normally, dental units and/or personnel are not organic to these headquarters. Divisions and field armies, combining tactical and administrative functions, assume the responsibility for dental support to all combat zone troops and units. The field army commander is responsible for dental support to the army group headquarters and all subordinate elements. This dental support is supplied by unit and area dental services.

372. Division Dental Service

a. The unit dental service of the division is given the mission of providing only emergency treatment to all assigned and attached personnel. This is an application of the doctrine of providing dental service with the least possible interference with the overall mission of the command. During active combat, the majority of the division personnel are too involved with their primary mission to be available to receive routine definitive-type dental care. Therefore, only sufficient dental personnel are assigned to provide emergency-type treatment. Routine dental care is provided by TOE dental units of the field army whenever the division is in a reserve status, otherwise out of action, or circumstances are such that the personnel can be made available for such care.

b. Division dental personnel are assigned to the clearing company of the medical battalion in sufficient numbers so that there is normally one dental officer with each clearing platoon. When field army dental units are attached to the division to provide routine dental care, the organic division dental personnel will likewise provide such care to the extent of their capability. It is the responsibility of the division surgeon to coordinate dental support with the field army headquarters since there is no staff dental officer within the division organization.

373. Hospital Dental Service

Normally, there are two types of TOE medical facilities within the combat zone which provide unit dental services. These include the 400-bed evacuation hospitals and the convalescent centers. In those commands where medical dispensaries are available they are also classified under this heading. In all the hospitals, the dental mission is identical. The primary mission is that of dental care to patients in the hospital and assigned or attached personnel and units. Normally, hospitals have a suffi-

cient patient load to justify the assignment of dental personnel and during the major portion of the time, dental personnel can be fully utilized in the accomplishment of the dental mission. Patients present in these hospitals, unless awaiting further evacuation, should be given priorities for dental treatment prior to their return to duty. When dental overloads develop, these dental services may be augmented with TOE 8–500 dental units upon the request of the unit commander.

374. Area Dental Service

Dental units performing dental support missions within the combat zone are controlled operationally by the field army dental surgeon. Normally, dental support in the combat zone is provided on an area basis by dental units of the TOE 8–500-series. In addition, these dental units may be employed to augment hospital dental services as overloads develop, and are employed to furnish routine dental care to divisions which are in reserve or otherwise available for such care. This highly flexible organization for dental support thus possesses the capability of providing the maximum of dental care where and when it is required and is the backbone of dental service in the combat zone. The principal element providing area dental service is the Team KJ, Dental Service Detachment. In addition, in the combat zone there are dental Teams KK, Dental Prosthetic Detachments, Mobile, and Teams KI, Dental Operating Detachments. Single dental service detachments or groups of all three types of dental units attached to a dental service detachment are given the mission of furnishing dental support to units located within a designated area.

Section V. DENTAL SERVICE IN COMMUNICATIONS ZONE

375. General

a. In the communications zone, as in the combat zone, the same basic principles of dental support organization and operation are applicable. The only variations of such dental support, as compared to that of the combat zone, are due to differing missions and organization of this major command. Unit and area types of dental service are utilized in the communications zone. Unit dental service in the communications zone consists primarily of the dental services organic to the various hospitals and certain other medical units. Area dental service is provided within the zone by dental teams of the 8–500-series.

b. The communications zone may have additional major com-

mands and assigned operating units located and functioning within the geographic confines of its zone. The advance and base logistical commands of the theater army logistical command provide administrative support to these major commands and assigned operating units as required. Thus, dental support to these major commands and assigned operating units becomes the responsibility of the commander, theater army logistical command. Therefore, in the computation of the troop list and troop spaces, personnel of these major commands and assigned operating units must be added to the strengths to be supported.

c. High priorities of treatment should be furnished to individuals and units destined for duty in the combat zone. This emphasizes the necessity of close liaison and staff planning to determine movement and planned disposition of such individuals and units located in or staged through the communications zone.

376. Division Dental Service

Any division which is physically located in the communications zone normally would be under the direct command of the theater army commander but, like the theater army replacement and training command, its logistical support is the responsibility of the commander, theater army logistical command. Therefore, the division with organic dental services sufficient only for emergency treatment would require augmentation by dental TOE units.

377. Hospital Dental Service

Normally, general and station hospitals, field hospitals, convalescent centers, and dispensaries are located in the communications zone. All of these units have organic dental services. The dental services of these units render unit-type dental service to all patients and assigned or attached personnel and units.

378. Area Dental Service

The area dental service is similar to that of the combat zone in that it must be organized with the maximum degree of flexibility. Dental units should be constantly under the operational control of the staff dental surgeon. TOE dental units in the communications zone function under the same basic principles as in the combat zone, but several additional types of dental units are available to furnish support. There are three types of dental units which can be allocated for employment in both the combat

and communications zone; these units are the Team KI, Dental Operating Detachment, Team KJ, Dental Service Detachment, and Team KK, Dental Prosthetic Detachment, Mobile. The additional units found in the communications zone are—Team KL, Dental Prosthetic Detachment, Fixed, Team KM, Dental Clinic, Fixed, and Team KN, Central Dental Laboratory.

CHAPTER 21

DEFENSE OF MEDICAL INSTALLATIONS IN THEATER OF OPERATIONS

Section I. GENERAL CONSIDERATIONS

379. Scope

The defense referred to in this chapter is that local security which is required of a medical unit, in both active and passive measures, against local activities of guerrilla, airborne, or infiltrating forces. Security encompasses the protection of the unit medical service personnel and of the sick and injured under their control when the unit is in operation, in bivouac, or on the march.

380. General

It must be borne in mind at all times that medical units are not organized primarily as combat units. While the accomplishment of the medical mission must always be the primary consideration, a balance must be maintained between providing medical service and the protection of medical installations, personnel, and patients by organic personnel. However, in the event of infiltration of, or guerrilla or airborne attacks on medical installations or units, all active and passive measures of defense, consistent with the provisions of treaties and customary international law relating to the protection of the injured and sick of the armed forces in the field, must be taken by the Army Medical Service personnel in order to protect themselves, the sick and injured under their control, and to prevent the destruction of medical installations.

381. Security Measures

a. The personnel of medical units are provided with weapons necessary for their own defense and that of the injured and sick in their charge as authorized by treaties and customary international law relating to the protection of the injured and the sick in armed forces in the field. The amount and type of weapons will be as authorized by Department of the Army directives.

b. Security measures must include an adequate warning system consisting of observers (interior guard), a means of signal communication to warn promptly of hostile operations, a security force, and a reserve force.

c. In the composition of an interior guard, a security force, and a reserve force, primary consideration must always be given to maintaining continuous medical service.

d. The organization of the ground and the fortification of a medical installation is limited only by the time and means available. Medical installations in forward areas should be protected by a degree of organization of the ground comparable to that effected by combat troops.

e. All medical units will be trained in camouflage methods. The use of camouflage in the field will be a command decision. Marking of installations and camouflage are incompatible and both should not be attempted concurrently.

f. Constant alertness, the best protection against surprise attack by the enemy, is of primary consideration.

g. Security measures, both active and passive, that normally will be employed in the protection of the medical installation, its patients, and its personnel should be included in the standing operating procedures of the unit.

382. Security During Operation and in Bivouac

Security during operational phases and in a bivouac area is obtained by both active and passive measures. Rallying points must be designated by each unit with routes thereto for each subordinate unit or section. An interior guard is established to give alarm in case of attack. The guards should be given the maximum protection possible commensurate with the full performance of their duties. In hostile territory and at night interior guards must be augmented.

383. Security on The Move

The security employed while on the move should stress the need for arriving at the appropriate location in time to render medical support. The enemy should be engaged only when the medical vehicles and convoy have been forcibly halted by ambush, roadblocks, or enemy fire.

384. Coordinated Defense Plans

The local defense plan of medical units must be in consonance with the overall defense plan of adjacent and/or supported units

in the same area and provisions made for the adjacent or supported unit to be alerted in the event of any enemy attack. When a medical unit occupies a portion of a tactical unit's area, security measures are coordinated by the rear area defense controller. However, medical units or personnel are never employed as part of the general reserve of a tactical unit.

385. Individual Weapons

Weapons authorized for use by medical units consist of individual small arms (pistols and rifles) and are included in the TOE for appropriate medical units. These weapons are issued to such medical units when authorized by the oversea commander.

386. Safeguarding Arms and Ammunition

Supply economy in weapons and ammunition must be strictly enforced, and it is emphasized to troops and units that supplies lost, traded, or thrown away will be recovered by guerrillas and used against our forces. Arms and equipment are salvaged from battlefields and from civilians who have collected them.

387. Defense Against Guerrilla Attack, Airborne Attack and Infiltration

The methods and principles of operation against guerrila action, airborne attack, and infiltration will be found in FM 31–15.

Section II. DEFENSIVE COMBAT

388. Principles of Defense

For a complete treatment of the principles of defense and organization of the ground, see FM's 7–10 and 7–40.

389. Defensive Measures on March

a. A medical unit, dependent upon its size and mission, moves as a march unit or as a serial. The march may be undertaken by a combination of combat, combat support, and service units or by medical units alone. When the medical units move independently, the unit commander is the convoy commander. In a combination of units the convoy command is clearly fixed before the move is made.

b. The march commander formulates a plan and issues orders to include information on interval between echelons and vehicles, rate of travel, and detailed plans of action in the event of infiltration, guerrilla, or airborne attack. All elements are briefed to

act initially according to prearranged plans, as there will seldom be enough warning for orders to be issued on the road.

(1) As a precaution against mines, a heavy vehicle with sandbags placed on the floor beneath personnel should lead the march.

(2) When practicable, personnel are so placed in vehicles that they can detruck rapidly; canvas covers of trucks are removed, and tailgates are left down.

(3) Arms and weapons are kept readily accessible for immediate use; senior personnel in each vehicle are made responsible for seeing that all passengers are on the alert.

(4) Radios, when available, should be distributed throughout the column to provide a ready means of communication throughout the convoy and to report an attack immediately to other friendly forces.

(5) When nurses are required to move with the convoy they ride in the vehicles transporting the main body of the unit.

c. Normally, part of the available troops are placed well forward in the convoy, and a strong detachment is placed in a vehicle that follows the main body by about 3 minutes. Radio contact is established between the two groups if possible. Fairly fast speed through defiles is especially indicated. Sharp curves, steep grades, or other areas where fast speed is impossible are reconnoitered by foot troops sent ahead. At the first indication of ambush while the convoy is in motion, leading vehicles, if the road appears clear, increase speed to the maximum consistent with safety in an effort to smash through the ambush area. When a driver of a vehicle is disabled by enemy fire or mines, the driver seeks to direct his vehicle to the sides of or off the road in order that vehicles in the rear may continue through. Emphasis is on evasive action. It is restated that the enemy should be engaged only when the medical convoy has been forcibly halted.

390. Defensive Measures While in Operation

a. Medical units are normally located within the defense area of the tactical unit they support, or within the defense area or sector of the army service area or communications zone in which they operate. The rear area security controller develops and coordinates the security measures for the area as a whole and integrates the local defense plans of individual units with the overall rear area security defense plans. While the rear area

security controller integrates all phases of the overall rear area security defense plans into a completed plan, no such plan will cause the medical units in the defense area to be placed in such a position as will require them to fire on attacking troops until such time as it becomes imperative that they open fire as a result of direct attack upon their units. Medical units do not fire to support adjacent units, unless the medical units themselves are directly threatened as a separate and distinct portion of the overall defensive position.

b. The medical unit commander makes provision for the local security of his unit by establishing an interior guard, a security force, and a reserve force and plans for their employment in a perimeter defense. He insures that his measures are in consonance with those of adjacent units.

(1) In an attempt to economize on manpower and in keeping with medical support doctrine, a site that readily lends itself to defense is selected for the installation.

(2) In organizing the defensive force every attempt should be made to commit personnel to maximum participation who are least needed to assist in patient treatment and evacuation.

(3) The perimeter is organized to permit one foxhole for each two individuals in the unit. The foxholes should be located in close proximity to the individuals' places of duty and near the section that they are assigned to defend. The size of the perimeter is that which will afford all-around protection and still be consistent with control. In the organization of the perimeter defense, specific sections of the perimeter should be assigned to the members of the security force beforehand, to enable them to prepare the type emplacements required.

(4) Normally, signal communications are maintained with the rear area security controller and with adjacent units for the receipt or report of information as to an impending attack or actual attack taking place.

c. (1) In a common perimeter defense while the unit is operating, the security required is similar to that security required when the unit is in bivouac (par. 392), in that the same security forces are utilized in as nearly the same compass direction as is possible.

(2) (*a*) All security measures must be maintained on an alert basis, and soldiers equipped with weapons must keep them available for instant use.

(*b*) Although protection of patients is the primary concern, adequate protection must be provided for vital areas, such as motor park, headquarters, medical supply area, etc. Special attention must be given to the security of arms, ammunition and supplies, and other equipment of value to the enemy forces. Classified or security materials (including documents) must be safeguarded to preclude their capture by enemy forces.

(3) (*a*) The interior guard is established to enforce traffic and police discipline, to give alarm in case of guerrilla attack, and to assist in the defense of the area or installation.

(*b*) All precautions must be taken to prevent guards from being surprised and overpowered before they can give alarm. Booby traps, trip flares, and other warning devices will aid in preventing such occurrences.

(*c*) To assist in the restriction of travel of unauthorized personnel, the area may be inclosed by barbed wire and should have but one opening for use as exit from, and entrance to, the area. This opening must be guarded and traffic through it should be by written pass and/or password. Unknown military and civilian personnel will be required to present proper identification and when considered necessary be provided with an escort while in the area as a further precautionary measure.

(4) Medical service should be continuous and emergency medical service must be available; hence a major portion of the security force should come from the administrative sections of the unit, while the reserve force should consist of the professional personnel who will be pressed into service as a last resort.

(5) Defensive positions must be organized and the area prepared for all-around defense.

(*a*) Fields of fire must be cleared and field fortifications constructed for guards and security forces.

(*b*) Areas from which short-range fire can be placed on the installation should be cleared and, if possible, mined.

(*c*) Buildings used for shelter should be selected with care. Generally, wooden and other light constructions

are used only when masonry and heavier constructions are not available. If wooden or other light buildings are used, the walls should be reinforced for protection against small arms fire.

d. (1) In the conduct of the defense, immediately after the alert is sounded, medical security forces occupy their positions. When it becomes clearly established that the medical installation defended is being directly attacked, fire by the defending force will be controlled by the force commander or his designated subordinate. Medical units do not open fire when adjacent units are engaged initially, but fire when the attack has been directed toward the medical installations and when, by firing, they can establish an effective defense. As the enemy advance continues, additional weapons open fire as targets appear within their sector. It should be emphasized that while "trigger-happy" gunners are not desired, the maximum fire power must be brought to bear when the enemy is *known* to be closing. The assault is met by fire and close combat. Men in a threatened area do not withdraw except on the verified order of their commander.

(2) If the enemy succeeds in overruning a sector of the defensive area, the reserve force is called upon to repel the enemy and restore the original line of defense.

391. Unit Variations in Defense Measures While in Operation

The procedure outlined in paragraph 390 establishes the general pattern for the defense of all medical units. It is either totally applicable or adaptable to the degree suitable for the unit's size, organization, and mission. The individual characteristics of certain medical units, however, either permit or require certain variations in this procedure.

a. Unit Aid Stations.

(1) Normally, unit aid stations are established within the perimeter occupied by the headquarters of the unit being provided medical service. Under these circumstances, headquarters personnel provide interior guards and the security force. However, at the sounding of an alert, aid men, litter bearers, ambulance drivers, and walking wounded, if present, assist in securing the perimeter. In order to provide for their medical needs, the unit surgeon insures that at least one medically

trained individual remains with litter or seriously wounded patients.

(2) In the presence of known or suspected guerrilla or infiltration activities, relay posts for ambulances and litter bearers of the unit medical platoons/sections are held to a minimum in order to reduce their exposure to guerrilla attack and also to increase the support strength in the area occupied by the unit aid station.

b. Ambulance Company. The platoons of an ambulance company of a division medical battalion are usually located between the unit aid stations and the clearing stations; however, in the presence of guerrilla activities it may be well to locate each platoon in the general area of the clearing station to which the ambulance platoon is transporting patients. This action is deemed necessary for security reasons. At any rate, it is well to limit or restrict the use of relay stations and operate the ambulances solely from a basic relay post.

c. Separate Clearing Companies; Medical Ambulance Companies; and Preventive Medicine Companies.

(1) The commanders of separate companies insure that not only the company as a whole, but its individuals, platoons, and sections are trained to establish and to occupy a perimeter defense or a portion thereof.

(2) The company commander is responsible for the security of his unit. When platoons or sections of the company operate independently, the appropriate platoon or section leader assumes this responsibility for his unit. If subordinate elements of separate units are attached to other units in a supplementing capacity, responsibility for security then rests with the commander of the supplemented unit, and personnel of the attached unit are integrated into the defense plan.

d. Theater Army Logistical Command Medical Units.

(1) The medical units of the theater army logistical command may utilize indigenous civilian help and as a consequence security must be established within the unit itself. For each group of civilians employed there should be at least one member of the unit available to supervise their activities and functions. Special emphasis will be made upon the necessity for safeguarding classified information from unauthorized personnel while such individuals may be working in proximity of classified containers, etc. It must always be borne in

mind that indigenous civilian help may be enemy sympathizers or members of subversive groups. Therefore, indigenous personnel, of unproven loyalty, should not be allowed to participate in defense measures.

(2) Normally, general and station hospitals are housed in a prepared area that requires considerable prior planning and engineer construction. Hence, in the erection of these hospitals, planning and construction should include prepared emplacements.

(3) The headquarters sections and the three hospitalization units of a field hospital contribute equally to the security of the unit in that each section provides an equal number of men for the interior guard, security force, and reserve plus having responsibility for an equitable portion of the defense. Provision is automatically made for each hospitalization unit to be trained and equipped to provide its own protection when it is employed independently.

392. Defensive Measures in Bivouac

a. The medical unit commander coordinates the security measures to be taken when the medical unit as a whole is assigned to a bivouac area.

b. Each section, or subordinate unit, is assigned a specific part of the area to occupy, organize, and defend; is held responsible for its own tactical security; and contributes an integral part to the perimeter defense of the total bivouac area.

c. Locations for the unit command post, unit vehicles (unless other arrangements have been made for them), kitchens, and latrines are determined and reserved. Emergency assembly areas are selected in order to insure prompt and orderly movement of the reserve force and for evacuation of nurses to that area if it becomes necessary.

d. In the formation of the interior guard, posts are assigned to each subunit area and maintained by the subunit. Security and reserve forces are maintained by each of the subunits and held in readiness to occupy positions upon alert. Under certain conditions, one or all of these reserve forces may be incorporated into the general reserve of the parent unit.

e. To assist in restricting unauthorized personnel from entering the unit area, barbed wire, if available, may be used to circumscribe the area. Normally, there should be only one opening (guarded) which is used for both exit and entrance. Warning

devices such as trip flares and boobytraps must be utilized in order to provide sufficient time for the occupation of defensive positions.

f. Positions are organized and the area is prepared for all-around defense, which is conducted as prescribed in paragraph 390*d*.

393. References

For additional information on defense against guerrilla warfare, see FM 31–15.

CHAPTER 22

MEDICAL SERVICE IN NUCLEAR WARFARE

Section I. GENERAL

394. Purpose and Scope

The contents of this chapter provide guidance in training and planning for medical service support in nuclear warfare. Discussion of this topic through the medium of a separate chapter does not imply that nuclear warfare is to be considered as a special operation. However, because of the relative newness of nuclear warfare, and in order to emphasize and provide continuity of thought in determining requirements for a contingent type of medical support, it is necessary that the basic principles previously stated in this manual be consolidated within this chapter. The basic principles included herein pertain to matters of immediate concern to the Army Medical Service following an enemy nuclear attack. This chapter is, of necessity, directed toward medical service activities which could reasonably be expected to function in cases of enemy employment of nuclear weapons. Recurring enemy attacks with multiple nuclear weapons of high yield may greatly reduce the effectiveness of medical support. Concerning this situation, certain portions of this chapter will serve as a guide in determining the extent of activity of medical service personnel and facilities, as adequate medical support under such conditions may not be available.

395. Basic Principles

a. In the event of nuclear attack upon our forces, commanders will be confronted with problems concerning medical service basically similar to those encountered in conventional warfare *except* that these problems will be confronted and compressed into a brief time element to a degree never before encountered, and an appreciable number of casualties may result from nuclear radiation effects.

b. Constant new developments in nuclear weapons increase the probability that serious amounts of contamination from fallout may be experienced in addition to blast, thermal radiation, and the already familiar effects of nuclear radiation. The increased

attention to fall out reemphasizes the importance of the position of the military commander in formulating command decisions appropriate to the situation at hand.

c. (1) In the expectation of mass casualties following a nuclear blast and the resultant heavy commitment of medical service personnel, commanders should, at all times, place great stress on first aid training. *Every individual must be capable of rendering self-aid and buddy-aid and should be sufficiently trained to render first aid to other wounded and injured personnel.* The capabilities of nonmedical personnel to perform self-aid and buddy-aid can be developed to maximum effectiveness through methods of training outlined in paragraph 18*k*.

(2) The casualty load and the limited medical means available make it essential that medical service personnel be used primarily in medical facilities to render emergency medical care and treatment. The principles of economical utilization of medical service assets precludes the use of such personnel for first aid or rescue operations.

(3) Activities involving the search for casualties in a damaged area, the rendering of immediate first aid, and the movement of casualties to nearby medical treatment facilities should be dependent upon rescue squads and vehicles provided by units other than medical units sent into the disaster area. Medical service personnel of the affected unit will perform as indicated in paragraph 406.

(4) Hospital-type units should be kept intact and not be called upon to furnish teams for use in the incident area(s).

d. Although it is not a designated responsibility of the surgeon to estimate the approximate casualty load and types of casualties following a nuclear attack upon friendly forces, the surgeon of the affected command should make such an appraisal as rapidly as possible in order to determine the immediate medical service support required in the damaged area. However, medical service assistance will not be delayed until this information is obtained.

e. The requirements for emergency medical treatment will far exceed those of emergency dental treatment, therefore, emergency teams from dental units must be placed under the operational control of the surgeon to administer emergency medical treatment while the area damage control plan is in effect.

396. Medical Planning Factors

a. Definitive planning and coordination are considered mandatory at all command levels in future military operations to insure adequate medical service support to the forces engaged in combat. This includes provision for the care, treatment, and evacuation of mass casualties resulting from nuclear attack. Plans emanating from higher headquarters should be formulated and distributed in time for all subordinate headquarters to be cognizant of the support they are to provide when called upon to do so, or when indicated, the support they are to receive. Consideration must be given to providing to the extent practicable, emergency medical care and treatment to civilian casualties.

b. Medical plans should envision various forms of simplified and standardized procedures for patient care during the initial phases after an enemy nuclear attack. The number and types of casualties to be handled, the economical utilization of medical service personnel and the stock of available restricted supplies makes this essential. Prior planning and training must be conducted with this aim in view.

397. Area Damage Control

Area damage control consists of those measures taken to minimize the immediate effects of mass destruction attack or natural disaster as an aid to the reestablishment of administrative and logistical support. Therefore, area damage control is applicable in all areas containing administrative and logistical installations and facilities essential to the support of the combat effort. All commanders are responsible for area damage control. Each unit and installation commander is responsible for area damage control measures within his unit or installation area and will, with capabilities, contribute to the overall area damage control operations within the field army or communications zone. Area damage control is a primary general/operational staff responsibility of G4/Director of Security.

a. (1) In the combat zone, commanders of field armies, establish a rear area security control center and appoint a rear area security controller who is responsible for planning and for organizing, supervising, and conducting rear area defense and area damage control. The rear area security controller functions as a special staff officer on the commander's staff. In order to attain effective control, each rear area security controller may divide the area for which he is controller into subareas

and appoints subarea controllers. Subarea controllers are responsible for subarea defense and area damage control planning and operations under supervision of the rear area security controller.

(2) In the communications zone, area commands are established as subordinate elements of the theater army logistical command, base logistical command, or advance logistical command, as appropriate. The mission of an area command is to provide area security, area damage control, and local administrative support necessary for the conduct of military operations within the area under its territorial control, or area of responsibility and thus relieve other elements of the theater army of the responsibility for performing these functions. Units operating within the area of responsibility of the area commander are subject to his orders in connection with area security and area damage control operations, and the allocation of local facilities, within the scope of approved plans and SOP's, as published by the appropriate logistical command commander.

b. A medical officer in the area or subarea is designated to assist the rear area security controller in formulating the medical plan for the area or subarea. Normally, responsibilities for area damage control in disaster areas will coincide with the established boundaries.

c. Subarea medical service will consist primarily of establishing treatment or sorting stations and administering emergency medical treatment. Emergency medical facilities, or sorting stations, are established on the periphery of the damaged area and have functions similar to those of unit aid stations.

398. Medical Sorting

In addition to what has been stated previously (par. 26) regarding the sorting of patients, it is desired to emphasize that sorting effects early release from patient status of maximal numbers of personnel who are capable of continuing their primary duty, caring for themselves and others, or who can participate in rescue activities. Medical sorting permits an orderly, timely, and efficient utilization of available medical means. The objectives of medical sorting are accomplished by designating patients within categories, the criteria for grouping varying with the military situation, the backlog of patients awaiting medical care, and the capability of each receiving medical unit. Categories for

medical care should be as follows: first, *minimal treatment*, patients who can be returned to duty immediately; second, *immediate treatment*, patients for whom expedient surgical procedures will save life or limb; third, *delayed treatment*, patients who, after emergency care, incur little increased risk by delay in further treatment; and fourth, *expectant treatment*, patients so critically injured that only complicated and prolonged treatment offers any hope for improving life expectancy. For further information regarding medical sorting, see TB MED 246.

399. Reinforcement of Medical Means

In the event of a nuclear attack, it must be assumed that requirements for adequate medical service support will be increased beyond normal capabilities and temporary reinforcement of medical service means will be necessary. Provisions must be made at appropriate command levels for the adequate and ample apportionment of medical means to support both the current military effort, which is the primary mission, and the area damage control plan. Equitable deployment of available Army Medical Service units will be considered in this respect. Additional support (personnel and vehicles) to medical units will be provided by other services. Civil affairs units may provide indigenous personnel to assist in the collection and evacuation of casualties and prisoners of war may be used for similar assistance.

400. Unit Dispersal

Medical planning at all levels during military operations must always be based upon the possibility and probability of the use of nuclear weapons by enemy forces. Analysis of targets in friendly areas will serve to determine target areas which would be most profitable for enemy forces to attack. Therefore, every consideration must be given to locating medical facilities away from, or on the fringes of, such target areas. Dispersal within units must be considered, however, it must also be realized that certain types of medical treatment facilities (hospitals, dispensaries, etc.) cannot in most cases employ this principle and concurrently perform their mission adequately.

401. Communications

Normally, both radio and telephone communication means will be available at the incident post (command post of the commander of the damage control party) in a damaged area. The designated medical officer (par. 397*b*) in the damaged area will utilize

these communication facilities to the extent possible under existing priorities in effecting the necessary coordination of medical activities. Considerations will also be given to the utilization of runners, vehicle drivers, and aircraft pilots in the transmittal of messages.

402. Nuclear Radiation Casualties

a. The immediate management of nuclear radiation casualties will be based upon signs and symptoms indicated by the patient rather than on the basis of the suspected dosage of radiation received. Unit surgeons must make a special effort to avoid the evacuation of individuals suspected of nuclear radiation injury, unless the symptoms and physical findings clearly justify such action. Treatment and evacuation of these individuals will be based primarily on the priority of their associated burns and/or traumatic injury.

b. The interpretation of the medical significance of various levels of exposure to radioactive contamination is a function of the medical service. The evacuation policy and maximum stay time permitted in a radioactive area are command decisions.

403. Traffic Control

a. Immediately following a nuclear blast, it can be expected that the road net into, and out of, the affected area will be subjected to a heavy volume of traffic from the following sources:

(1) Movement of reinforcements by friendly forces to reinforce the unit(s) in the involved area.

(2) Movement of service troops required in the area to accomplish repairs and salvage duties.

(3) Disorganized exodus of panic-stricken nonmilitary individuals from the affected area.

(4) Increased volume of vehicular traffic engaged in the evacuation of patients.

b. Prompt and early close control of traffic should be initiated and maintained by the provost marshal of the area concerned in order that ambulances and other vehicles used in evacuating patients can move expeditiously. All plans to cope with this situation are normally coordinated by the provost marshal with the transportation officer and the surgeon of the involved area.

404. Medical Supplies

Medical units, other than fixed hospitals, should maintain, over

and above their normal requirements, certain emergency type medical supplies for use in the event of a nuclear attack, and each medical supply installation should be prepared to establish emergency supply points, as required. Medical service plans will include provisions for property exchange and required medical supplies to include whole blood, plasma volume expanders, drugs, splints, and dressings, and the means and methods of delivering these items promptly to units in an area where a nuclear detonation has occurred. Fixed hospitals should maintain equipment and supplies on hand which will provide a 50 percent expansion capability. In addition, each hospital should be able to expand to several times normal capacity, utilizing emergency expedients such as adjacent buildings and/or additional tentage for housing patients, and litters in lieu of beds or cots. Prior planning should take cognizance of such possible eventualities. As an additional source of supplies, consideration should be given to having each individual carry extra medical supplies, packaged in such a manner that they will not reduce the combat efficiency of the individual. When the station is established these additional supplies should be collected at the station for use as required, and thus would be available in a stricken area. When the unit proceeds on the march these supplies could again be redistributed to the individuals of the unit. Examples of such supplies are additional first aid dressings, salt, antibiotics, etc.

Section II. UNIT AND DIVISION MEDICAL SERVICE

405. General

The structural organization of elements comprising the division medical service is considered adequate to provide medical support in conventional warfare. Casualty impact on the medical service of a division involved in a nuclear attack will be in direct proportion to the involvement of divisional units. Casualties within the units affected by the nuclear blast can be expected to include medical service personnel who are organic to these units. Augmentation with personnel, equipment, and supplies from the medical service of the field army normally will be required. In addition, rescue teams provided by nonmedical elements (engineer, ordnance, etc.) must be made available. Requirements for, and allocation of, additional medical service personnel and units to augment the division medical service, in the event of a nuclear blast, will be preplanned and based upon the recommendations of the division surgeon.

406. Operations

In the event of an enemy nuclear attack upon a division area, the continuity of adequate medical service functions there will depend largely upon the capabilities of the field army to reinforce the division's existing medical means. Tactical integrity must be maintained by, and within, the division in order to prevent any exploitations by the enemy. Normally, each medical unit will be required to operate within its area of responsibility. A medical unit affected directly by nuclear attack will make every effort to consolidate remaining personnel and equipment and start aid station activities to the best of its ability until additional medical means become available. As soon as possible following a nuclear blast in a division area, the division surgeon must evaluate the medical service situation within the affected area and initiate immediate action to obtain all necessary medical support from the field army.

Section III. CORPS, ARMY, AND COMMUNICATIONS ZONE MEDICAL SERVICE

407. General

Within the logistical area supporting the divisions engaged in combat the principles of area damage control as outlined in FM's 31–15 and 100–31 and briefly discussed in this chapter are applicable.

408. Operations

Certain specific operating functions pertinent to medical service activities are defined in FM 100–31. In addition thereto, the following points must be considered in the event of an enemy nuclear attack behind a division rear boundary.

a. Emergency Medical Facilities.

(1) Sorting stations, established on the periphery of the damaged area, should be located with regard to normal exits. Directional signs should be posted at intermediate intersections, and each station should prominently display the Geneva Flag. Specific medical disaster teams to operate these stations will be designated within the medical portion of the area damage control plan. The organization and equipment of each team should be effected to parallel those of a clearing platoon organic to a medical clearing company (separate). Additional teams, also predesignated, will

be immediately placed on call of the appropriate surgeon and are to be employed on an "as required" basis.

(2) Each sorting station must be provided with an adequate working area, to include sufficient space for holding several hundred casualties until they can be safely evacuated.

(3) Medical personnel and units entering the disaster area will obtain clearance from the rear area security control post. They will report to the incident officer upon arrival at the disaster location.

(4) Patients with minor wounds or injuries will be treated promptly and returned to duty.

b. Evacuation and Hospitalization.

(1) Evacuation will be based on a policy of early sorting and prompt movement of selected patients, in accordance with established priorities, to designated hospitals or other definitive treatment facilities.

(2) Requirements for augmentation of emergency evacuation facilities will be made known to the next higher or supporting element by the most expeditious method.

(3) So far as practicable, civilian patients treated at sorting stations should be evacuated by civilian evacuation means to civilian treatment facilities. In this connection, close coordination must be maintained with the local civil affairs representatives. Preventive medicine officers should also plan close cooperation with the local civil affairs representatives to reduce possible casualties in devastated areas from disrupted public health procedures and from possible injury due to radioactive fallout.

(4) Hospitals located in close proximity to the damaged area will be directed to discharge all patients possible and prepare to receive patients in heavy numbers.

(5) The evacuation of patients from sorting stations is a responsibility of the command indicated in the area damage control directive.

(6) In order to expedite vehicular evacuation of patients, the surgeon directly concerned will maintain close coordination with the appropriate G4/Director of Services as to the use of road nets and the establishment of road priorities for evacuation purposes.

(7) Additional space necessary to provide hospitalization for mass casualties will be obtained by expanding existing

hospital facilities with available 50 percent expansion equipment, plus a temporary expansion of several times the capacity of each hospital with emergency improvised equipment, as outlined in paragraph 404. Augmentation of such facilities as medical clearing stations, convalescent centers, etc., with professional personnel and necessary equipment, will also be effected as required.

(8) The scope of definitive treatment provided will be dictated by the disparity between available medical resources and requirements of each individual mass casualty situation.

Section IV. MEDICAL SERVICE IN SPECIAL OPERATIONS

409. General

Medical service organization and functions in combat areas presenting abnormal climatic and terrain conditions are prescribed in existing publications. However, in view of the probability of enemy employment of nuclear missiles against our forces in such areas, considerations beyond those already covered in existing doctrine are indicated. In general, the principles of medical service in nuclear warfare, as outlined previously in this chapter, are applicable under abnormal climatic and terrain conditions. Whenever medical planning is concerned with operations of this type, special consideration must be given to those abnormalities as to their effect upon prompt medical treatment, evacuation, and hospitalization of casualties when further aggravated by an enemy nuclear attack.

410. Special Considerations

a. Mountain Operations. Units will be widely dispersed due to separating ridges and mountain peaks; mountain passes, fills, and cuts may be present in the area; roads and railroads will be either nonexistent or very limited in usability; and, in general, movement will be greatly restricted.

b. Operations in Snow and Extreme Cold. Group concentrations of troops sharing common shelters may be spread over a large area; many casualties will be hidden by the snow; facilities for heat and shelter will be extremely limited; icy winds will impede movement on foot in snow covered areas; the intensity of flash burns will be increased due to reflection from snow; and the incapacitating effects of wound will be aggravated by extreme cold.

c. Jungle Operations. Visibility will be extremely limited; mobility of existing roads and trails will be severely restricted; formidable obstacles will exist in the form of scattered debris; and heavy brush and/or forest fires may be encountered in dry areas.

d. Desert Operations. Individuals and units will be widely dispersed due to ease of dispersion in desert area; logistical support will be dependent on long and tenuous lines of communication; and water and food will be in short supply and may be destroyed or become contaminated by radioactive fallout necessitating a delay in their consumption. Shelter from extreme heat may be drastically limited. Radiation and flash burn effects upon personnel experiencing attack during daylight hours will be influenced by such factors as heavy body perspiration and the exposure of large skin areas by individuals seeking relief from the extreme desert heat.

411. References

For further details regarding area damage control and the management of mass casualties, see FM's 31–15 and 100–31 and appropriate Army Medical Service Technical Bulletins.

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